










University of Illinois  
Carbondale  
Bulletin

1917-18  
November 1917





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Southern Illinois  
University  
at Carbondale  
Bulletin

SIU

1987-88 Counselor's  
Advisement Catalog

SIU...

where  
good things  
happen!









# **Southern Illinois University at Carbondale Bulletin**

## **1987-88 Counselor's Advisement Catalog**

**Southern Illinois University  
at Carbondale Bulletin (USPS 506-080)**

**Volume 28, Number 1, June 1986**

Second-class postage paid at Carbondale, Illinois 62901. Published by Southern Illinois University at Carbondale, Carbondale, Illinois 62901, five times per year, in June, July, August, September, and October. POSTMASTER: Send address changes to Academic Publications c/o University Publications, Southern Illinois University at Carbondale, Carbondale, IL 62901.

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## COUNSELOR'S ADVISEMENT CATALOG

Dear Counselor:

We are pleased to provide you with our 1987-88 Counselor's Advisement Catalog. We hope that it continues to assist you in advising your students relative to their preparation and transition to Southern Illinois University.

There are some major policy revisions included in our new edition that merit review. Please pay particular attention to the following sections:

New General Education Requirements (see page 40).

Engineering Admission and Retention Policies (see page 15).

College of Business and Administration Admission and Retention Policies (see page 50).

Please discard all older editions of this publication. Should you need additional copies, write or call us and we will be glad to provide them.

M. George Mandis, Editor

NEW STUDENT ADMISSION SERVICES  
SOUTHERN ILLINOIS UNIVERSITY  
CARBONDALE, ILLINOIS 62901

800-642-3531 (toll free in Illinois)  
618-536-4405 (direct)

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# UNIVERSITY CALENDAR

## Fall Semester 1986

Fall Orientation  
Semester Classes Begin  
Labor Day Holiday  
Thanksgiving Vacation

Final Examinations

Wednesday, August 20-Sunday, August 24  
Monday, August 25, 8:00 a.m.  
Monday, September 1  
Saturday, 12:00 noon--Monday, 8:00 a.m.  
November 22-December 1  
Monday-Friday, December 15-19

## Spring Semester 1987

Martin Luther King, Jr.'s Birthday Holiday  
Semester Classes Begin  
President's Day Holiday  
Spring Vacation

Final Examinations  
Commencement

Monday, January 19  
Tuesday, January 20, 8:00 a.m.  
Monday, February 16  
Saturday, 12:00 noon-Monday, 8:00 a.m.,  
March 14-23  
Monday-Friday, May 11-15  
Saturday, May 16 and Sunday, May 17

## Summer Session 1987

Eight Week Session Begins  
Independence Day Holiday  
Final Examinations  
Commencement

Monday, June 15, 7:30 a.m.  
Friday, July 3  
Thursday and Friday, August 6-7  
Saturday, August 8

## Fall Semester 1987--Proposed

Semester Classes Begin  
Labor Day Holiday  
Thanksgiving Vacation

Final Examinations

Monday, August 24, 8:00 a.m.  
Monday, September 7  
Saturday, 12:00 noon--Monday, 8:00 a.m.,  
November 21 - December 30  
Monday--Friday, December 14-18

## Spring Semester 1988--Proposed

Martin Luther King Jr.'s Birthday Holiday  
Semester Classes Begin  
President's Day  
Spring Vacation

Final Examinations  
Commencement

Monday, January 18  
Tuesday, January 19, 8:00 a.m.  
Monday, February 15  
Saturday, 12:00 noon--Monday, 8:00 a.m.,  
March 12-21  
Monday--Friday, May 9-13  
Saturday, May 14





## LEGEND

### Old Campus

1. Old Main Site
2. Altgeld Hall (1896)
3. Wheeler Hall (1904)
4. Allyn Building (1908)
5. Anthony Hall (1913)
6. Shryock Auditorium (1918)
7. Davies Gymnasium (1925)
8. Parkinson Laboratory (1928)
9. McAndrew Stadium (1938)

### New Campus

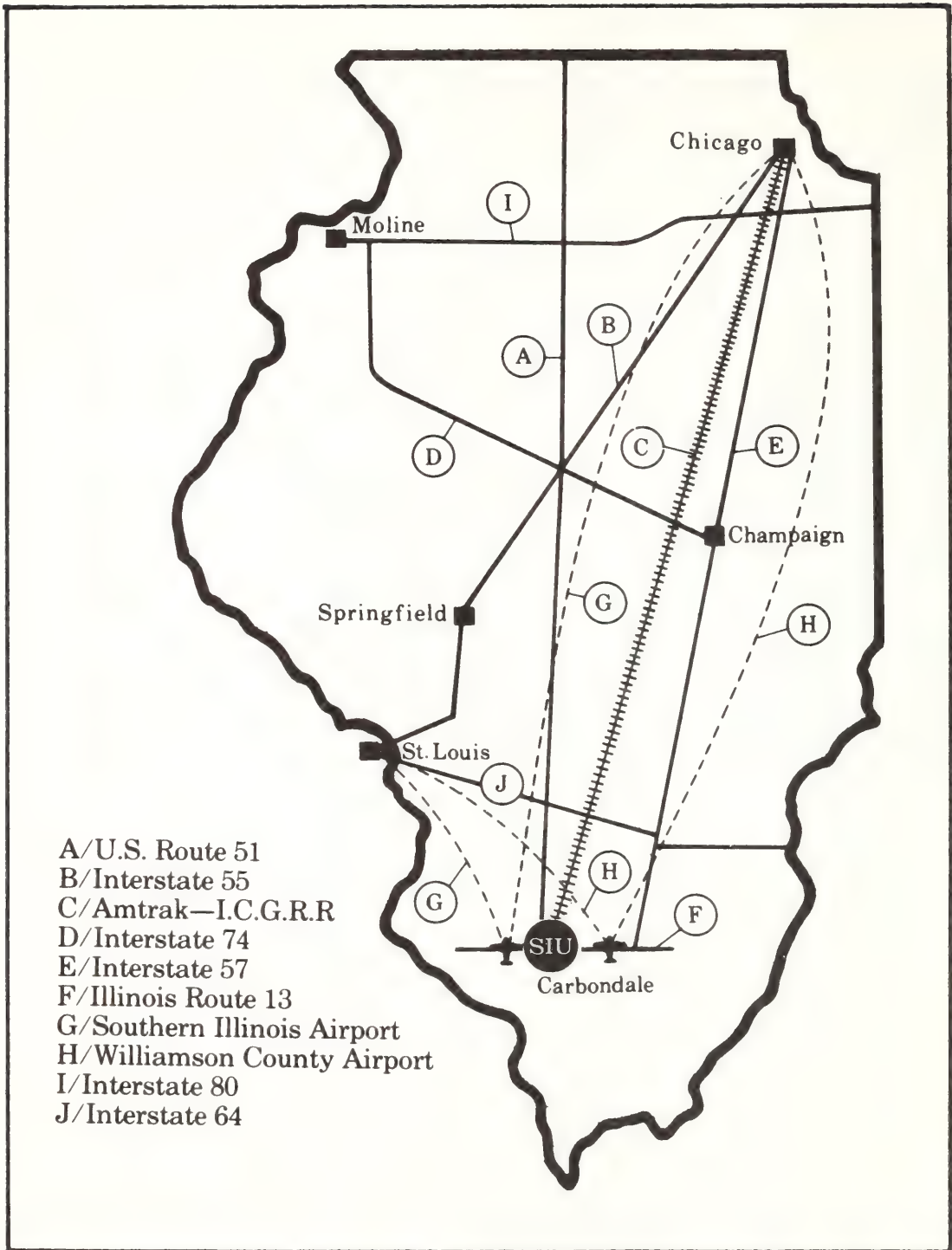
10. Pulliam Hall (1951)
12. Woody Hall (1953)
13. Lindgren Hall (1953)
14. Morris Library (1956)
15. Thompson Point Residence Halls (1957)
16. Agriculture Building (1957)
17. Quigley Hall (1959)
18. Southern Hills Family Housing (1960)
19. Greek Row (1960)
20. Student Center (1961)
21. SIU Arena (1964)
22. Wham Education Building (1964)
23. University Park Residence Halls (1965)
24. Lawson Hall (1965)
25. Communications Building (1966)
26. Health Service (1966)
27. Technology Buildings (1966)
28. Henry J. Rehn Hall (1967)
29. James W. Neckers Building (1968)
30. Evergreen Terrace Family Housing (1968)
31. Washington Square (1967)
32. Brush Towers Residence Halls (1968)
33. Life Science II (1971)
34. President's Home (1971)
35. Faner Building (1973)
36. Student Recreation Center (1977)
37. School of Technical Careers Building (1978)
38. Hiram H. Lesar Law Building (1981)

### Schools, Colleges, and Programs

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- Book Store
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## CAMPUS

The original eight-building campus with its Gothic architectural tradition is now completely surrounded by a sprawling modern 974-acre campus with a maze of paths, impressive buildings, and attractive residence halls. Even though the original campus still serves as a focal point of study and university tradition, the prevailing design of the 255-building campus now is contemporary. Facilities vary in style, size, and purpose from a circular 10,000-seat arena, to an eight-sided multimedia instruction center, 17-story high-rise residence halls, and a permanent beach house on the 40-acre spring-fed campus lake.

Oriented to teaching and research, the University provides a balance of laboratories and classrooms which serve as satellites to the impressive 7-story Morris Library containing over 1.7 million volumes and subscribing to 14,900 current periodicals.

Additional facilities include the School of Technical Careers' Carterville campus some ten miles east, the Southern Illinois Airport three miles west, laboratories at Little Grassy Lake, and University Farms.



## UNIVERSITY DIRECTORY

Listed below are the various offices, schools and colleges which are available to aid counselors, prospective students, and parents in answering questions which may not be within the scope of the various University publications. Please feel free to direct inquiries to the appropriate areas.

The general University telephone number is (618) 453-2121. The mailing address is Southern Illinois University, Carbondale, Illinois 62901.

### OFFICES

SIU (University Switchboard)	(618) 453-2121
Admissions and Records	(618) 453-4381
Aerospace Studies (AF-ROTC)	(618) 453-2481
Airport, Southern Illinois	(618) 529-2681
Army Military Science (Army ROTC)	(618) 453-5786
Athletics, Intercollegiate for Men	(618) 453-5311
Athletics, Intercollegiate for Women	(618) 536-5566
Athletics, Tickets	(618) 453-5319
Bursar (payment of fees)	(618) 453-2221
Continuing Education	(618) 536-7751
Counseling Center	(618) 453-5371
Disabled Student Services	(618) 453-5738
Health Service	(618) 453-3311
Housing Business Services (on-campus housing)	(618) 453-2301
Housing Information Services (off-campus housing)	(618) 453-2301
International Development	(618) 453-5774
New Student Admission Services	(618) 536-4405
(Illinois residents call toll free)	(800) 642-3531
Parking Division	(618) 453-5369
Student Development	(618) 453-5714
Student Life	(618) 536-2338
Student Services	(618) 453-2374
Student Work and Financial Assistance	(618) 453-4334
Testing Center (CLEP, Placement/Proficiency, ACT Residual)	(618) 536-3303
University Publications and Graphic Services	(618) 536-3325
University Honors	(618) 453-2824
University Ombudsman	(618) 453-2411

### SCHOOLS AND COLLEGES

Agriculture, School of (Agriculture Building)	(618) 453-2469
Business and Administration, College of (Rehn Building)	(618) 453-3328
Communications and Fine Arts, College of (Communications Building)	(618) 453-4308
Education, College of (Wham Education Building)	(618) 453-2415
Engineering and Technology, College of (Technology Building)	(618) 453-4321
Undergraduate Academic Services (Woody Hall)	(618) 536-5506
Graduate Studies and Research (Woody Hall)	(618) 536-7791
Human Resources, College of (Quigley Building)	(618) 453-2251
Law, School of	(618) 536-7711
Liberal Arts, College of (Faner Building)	(618) 453-2466
Medicine, School of (Wheeler Building)	(618) 536-5511
Science, College of (Neckers Building)	(618) 536-6666
School of Technical Careers (Technical Careers Building)	(618) 536-6682

## GENERAL INFORMATION

### ENVIRONMENT

Community: Carbondale, Illinois (pop. 26,400)  
Location in State: Southern Illinois (Jackson County)  
Miles from: St. Louis, 110; Chicago, 330; New York, 960; San Francisco, 2,140.  
Terrain: Slightly rolling (elevation 400-500 feet).  
Climate: Pleasant and mild year-round temperature, mean annual temperature 57.0 degrees.  
Area: Historical "Little Egypt," year-round outdoor recreation, four scenic large lakes, national forest and game refuge.  
Transportation: Major train, plane, and bus routes: Amtrak Rail System; Britt Airways, Ozark Midwest; SIU Air Institute Charter Service; Gulf Transport bus line; highway routes Interstate 57, US 51, Illinois 13.

### UNIVERSITY

Name: Southern Illinois University  
Founded: 1869  
President: Albert Somit  
Campus Location: Southwest corner of the community  
University telephone number: 618-453-2121  
Type: Public state university of the Southern Illinois University System  
Student Body: Co-ed  
Curriculum: Undergraduate, graduate, and professional  
Calendar: Early semester (Fall and Spring), Summer session  
Campuses: Carbondale; School of Technical Careers' Carterville Campus; Southern Illinois Airport; outdoor laboratories; university farms  
Acreage: 7,014; on-campus 974 acres  
Campus Buildings: 255  
Colors: Maroon and white  
Mascot: Saluki (Egyptian hunting dog)

### STUDENT DATA

Enrollment, Fall 1985: 22,672  
Undergraduate, 18,651; graduate, 3,450; Professional 571;  
Men, 14,327; Women, 8,345  
Residency: Illinois 17,721 (78%); out-of-state 2,965 (13%); 98 other countries, 1,986 (9%)

### PERSONNEL, 1985

Percentage full-time faculty with doctorate: 65%  
Undergraduate students/faculty who teach at undergraduate level ratio: 18:1

### DEGREES

Undergraduate: Associate: A.A.S.; Baccalaureate: B.A., B.S., B. Mus., B.F.A.  
Graduate: M.Acc., M.A., M.B.A., M.F.A., M. Mus., M.P.A., M.S., M.S. Ed.;  
Specialist Degree (6 yr.); Ph.D., Rh.D., D.B.A., M.D., J.D.



## ACCREDITATIONS AND AFFILIATIONS

American Association of Museums  
The Association of American University Presses  
North Central Association of Colleges and Secondary Schools  
Honors Council of the Illinois Region (HCIR)  
Liaison Committee on Medical Education of the American Medical Association and the  
Association of American Medical Colleges  
Association of Research Libraries  
National Shorthand Reporters Association  
Photo/Marketing Association International  
Association of Collegiate Schools of Architecture  
American Institute of Architects  
National Collegiate Honors Council  
Upper Midwest Honors Council  
Association of University Programs in Health Administration (AUPHA)  
American Association of Airport Executives (AAAE)  
Federal Aviation Administration  
National Fire Protection Association  
Western Association Accreditation  
National Institute for Automotive Service Excellence  
Illinois Department of Registration and Education  
National League for Nursing  
Committee on Allied Health Accreditation (CAHEA) of the American Medical Association and  
the Joint Review Committee for Radiologic Technology Education  
CAHEA and the Joint Review Committee for Respiratory Therapy Education  
American Physical Therapy Association  
American Chemical Society  
American Institute of Professional Geologists  
Illinois State Board of Education  
American Board of Funeral Service Education  
Commission on Dental Accreditation of the American Dental Association  
American Bar Association  
National Association of Schools of Public Affairs and Administration  
American Psychological Association  
American Association for Accreditation of Laboratory Animal Care  
Accredited Board for Engineering and Technology (ABET)  
Council on Social Work Education  
Commission on Accreditation of Rehabilitation Institute  
Council on Rehabilitation Education  
Association of American Law Schools  
National Recreation and Parks Association (National Accreditation Council)  
University Council for Vocational Education  
National Association of Industrial Technology (NAIT)  
American Board of Examiners in Speech Pathology and Audiology  
National Association of Schools of Art and Design  
National Association of Schools of Music  
National Council for Accreditation of Teacher Education  
American Library Association  
National Athletic Trainers Association (NATA)  
Society of American Foresters (SAF)  
Accreditation Council of the American Assembly of Collegiate Schools of Business  
Accrediting Council on Education in Journalism and Mass Communications

## UNDERGRADUATE CURRICULA AND COURSES

Accounting	Equine Studies <sup>1</sup>
Administration of Justice	Finance
African Studies <sup>1</sup>	Fire Science Management
Aging Studies <sup>1</sup>	Food and Nutrition
Agribusiness Economics	Forestry
Agricultural Education	French
Agricultural Education & Mechanization	Geography
Agriculture, General	Geology
Allied Health Careers Specialties*	German
Animal Industries	Greek <sup>1,3</sup>
Anthropology	Health Care Management
Aquatics <sup>1,4</sup>	Health Education
Architectural Technology*	History
Art	Home Economics Education
Asian Studies <sup>1</sup>	Industrial Technology
Athletic Training <sup>4</sup>	Interior Design
Automotive Technology*	Japanese <sup>1,3</sup>
Aviation Flight*	Journalism
Aviation Maintenance Technology*	Language Arts (English and Reading)
Aviation Management	Latin <sup>1,3</sup>
Avionics Technology*	Law Enforcement
Biological Sciences	Linguistics
Black American Studies <sup>1</sup>	Management
Botany	Marketing
Business and Administration	Mathematics
Business Economics	Mechanical Engineering
Business Education	Microbiology
Career Development	Mining Engineering
Chemistry	Mortuary Science and Funeral Service*
Child and Family	Museum Studies <sup>1</sup>
Chinese <sup>1,3</sup>	Music
Cinema and Photography	Occupational Education
Civil Engineering	Paralegal Studies for Legal Assistants
Classical Civilization <sup>1</sup>	Philosophy
Classics	Photographic Production Technology*
Clothing and Textiles	Physical Education
Coaching <sup>1,4</sup>	Physical Therapist Assistant*
Commercial Graphics - Design*	Physics
Communication Disorders and Sciences	Physiology
Community Development <sup>1</sup>	Plant and Soil Science
Comparative Literature <sup>1</sup>	Political Science
Computer Science	Psychology
Construction Technology	Radio-Television
Consumer Economics and Family Management	Radiologic Technology*
Consumer Studies <sup>1</sup>	Recreation
Dance <sup>1,4</sup>	Religious Studies
Dental Hygiene*	Respiratory Therapy Technology*
Dental Technology*	Russian
Design	Secretarial and Office Specialties*
Early Childhood	Social Studies
Earth Science <sup>1</sup>	Social Work
East Asian Civilizations <sup>1,3</sup>	Sociology
Economics	Spanish
Educational Media <sup>1</sup>	Special Major
Electrical Engineering	Special Education
Electronic Data Processing*	Speech Communication
Electronics Management	Theater
Electronics Technology*	Tool and Manufacturing Technology*
Elementary Education	Uncommon Languages <sup>1,2</sup>
Engineering	University Studies
Engineering Technology	Women's Studies <sup>1</sup>
English	Zoology

### Pre-Professional Programs<sup>5</sup>

Pre-Dentistry	Pre-Pharmacy
Pre-Law	Pre-Physical Therapy
Pre-Medicine	Pre-Podiatry
Pre-Nursing	Pre-Theology
Pre-Osteopathy	Pre-Veterinary Science
Pre-Optometry	

<sup>1</sup>Minor only.

<sup>2</sup>Described under Linguistics.

<sup>3</sup>Described under Foreign Languages.

<sup>4</sup>Described under Physical Education.

<sup>5</sup>Preparatory to applying to professional schools. These are non-degree programs.

\*Associate degree curriculum.



## APPLICATION REQUEST: ADMISSION PROCEDURES

To request application materials for admission, write to:

New Student Admission Services  
Southern Illinois University  
Carbondale, Illinois 62901

or call toll free (Illinois residents) 800-642-3531. Direct, call (618) 536-4405.

Counselors may request application packets in small quantities. Rolling admissions process:  
NO DEADLINE. APPLICATION FEE: NONE.

### ACT/APP

Beginning freshmen can simplify their admission to SIU by indicating at the time they write the American College Test (ACT) that their test scores should be sent to Southern Illinois University (college code 1144). Students who take the ACT during national test dates and send their scores to us do not have to initiate the application for admission. Once we are in receipt of a student's test scores, we will contact that student automatically. Students who score 18 or higher on the ACT will receive a preprinted application called ACT/APP. To finalize admission, the ACT/APP must be returned to us along with an official copy of the student's transcript.

Students who have sent ACT scores of less than 18 but greater than 14 will be sent a special application for admission. This document must be completed and returned to the Admissions Office with a copy of the student's transcript. Students with test scores less than 15 must submit a regular application for admission.

All students who do not send ACT scores as a result of the national test dates must apply through the traditional application for admission process (details described below).

### REQUIRED MATERIALS AND PROCEDURES

#### HIGH SCHOOL APPLICANTS

Freshman may be considered for admission any time following their sixth semester in high school. Prospective high school students should submit:

1. Completed and signed application forms or ACT/APP.
2. Two copies of the high school transcript signed with school seal, class rank, and if available, ACT scores.
3. Official ACT scores (from Iowa City).

#### G.E.D. APPLICANTS

Eligible G.E.D. applicants will be considered for admission upon submission of the following materials.

1. Completed and signed application forms.
2. High school transcript.
3. Official G.E.D. results.
4. Official ACT scores (required of students less than 21 years of age).

NOTE: Students who did not request the results of the ACT examination be sent to SIU (code 1144) at the time they registered for the exam must request that supplemental scores be sent to SIU by contacting ACT, P.O. Box 451, Iowa City, Iowa 52240.

#### TRANSFER STUDENTS

Transfer students may be considered for admission as early as one year in advance of their intended enrollment at SIU or as late as the beginning of each semester. Transfer students who will have at least 26 semester hours or 39 quarter hours prior to entering SIU will be considered for admission upon submission of the following materials:

1. Completed and signed application forms.
2. Official transcripts from each institution attended after high school.

Transfer students who will have less than 26 semester or 39 quarter hours prior to entering SIU will be considered for admission by providing:

1. Completed and signed application forms.
2. Official transcript from each institution attended after high school.
3. High school transcript (2 copies).
4. Official ACT scores.

All students transferring from a non-regionally accredited institution must also submit a high school record and ACT scores regardless of hours completed, degrees earned, or grade point average. All students who are required to submit a high school record but who did not graduate should submit results of the G.E.D. examination and their incomplete high school record.

New Student Admission Services assists high schools and community colleges by providing representatives for college day and night programs, counseling prospective students, visiting schools and colleges on request, distributing university materials, and providing general assistance to counselors. Counselors should feel free to contact members of this staff any time when information or materials are needed.

New Student Admission Services  
Southern Illinois University  
Carbondale, Illinois 62901  
Phone: 618-536-4405  
Toll Free (Illinois Residents) 800-642-3531

Dr. Terry Mathias	Director
Tom McGinnis	Assistant Director
Tammy Gormley Cavarretta	Counselor
Kim Fitzgerald	Counselor
Tammy Gwaltney	Counselor
Dianna King	Counselor
Brenda Major	Counselor
George Mandis	Counselor
Debbie Perry	Counselor
Bob Quane (Chicago area)	Counselor

#### ADMISSION POLICIES, REQUIREMENTS

##### ADMISSION OF FRESHMEN

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of non-recognized high schools may be admitted to the University by completing successfully the General Educational Development Test or an entrance examination. Persons who have not completed high school may also qualify for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work and graduation.

Students entering the University as freshmen are enrolled in the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are enrolled in Undergraduate Academic Services, pre-major advisement or selected other academic units.

##### ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

For engineering majors, see page 15, for College of Business and Administration majors, see page 50.

Applicants seeking admission to a baccalaureate program who have an ACT composite score of 18 or higher (SAT 780) are eligible for admission any semester. In addition, high school graduates who rank in the upper half of their graduating classes and who score a minimum ACT composite of 15 or higher (SAT 700) are also eligible for admission any semester.

High school graduates who rank in the upper two thirds of their graduating class or who earn a minimum ACT composite score of 15 or higher (SAT 700) are admissible for the spring semester on a conditional basis. The conditions are that the student must enroll for a minimum of 12 semester hours and complete at least 10 semester hours of graded work with a minimum overall "C" average. Students who do not meet the conditions of probationary admission will be suspended and will not be considered for re-admission for one academic year.

Students who have been admitted or who qualify to be admitted on a conditional basis may earn transfer credit at another college or university prior to their spring semester at SIU. However, to maintain their eligibility for spring enrollment, students must earn an overall 'C' average in all work attempted.

A limited number of applicants who do not meet the University's entrance requirements may be granted admission to the fall semester through a special admission program, The Center for Basic Skills. All applicants who are not admissible by the above requirements will have their applications reviewed automatically for admission to the special program.

##### ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

Students seeking admission into the associate degree programs in the School of Technical Careers can qualify for admission any semester if they rank in the upper two thirds of their graduating class or score a minimum ACT composite score of 15 or higher (SAT 700). Students who do not qualify for admission to the associate degree programs under the above requirements may be granted conditional admission for the spring semester, provided those programs are available in spring.



Students seeking admission to Allied Health Career Specialties, Commercial Graphics-Design, Dental Hygiene, Dental Technology, Mortuary Science and Funeral Service, or Physical Therapist Assistant programs must meet University entrance requirements as well as those of the specific programs. Admission to SIU does NOT insure admission into one of the above two year associate degree programs. Interested counselors/students are urged to contact the individual program coordinators to determine what additional materials may be required for admission. All students will receive further information after their admission to the University.

Allied Health Careers Specialties (including radiologic technology and respiratory therapy) applicants must be admitted to the University by February 27, 1987.

Dental Hygiene applicants must be admitted to the University and submit all materials by January 16, 1987 for Fall 1987.

Physical Therapist Assistant applicants must be admitted to the University by January 16, 1987 for consideration for Fall 1987.

Students may be admitted only during the fall semester to associate degree programs in Allied Health Career Specialties, Dental Hygiene, Physical Therapist Assistant, Commercial Graphics-Design and Dental Technology.

#### ADMISSION OF G.E.D. APPLICANTS TO UNIVERSITY PROGRAMS

Non-high school graduates may be considered for admission by satisfactorily passing the G.E.D. examination and submitting all required application materials. Students who are less than 21 years of age are also required to achieve a minimum ACT score of 15 for admission to four-year programs.

#### ADMISSION OF TRANSFER STUDENTS

For academic purposes, undergraduate applicants for admission to the University are considered to be transfer students when they present any amount of graded work for transfer consideration which was earned after high school graduation; otherwise, they are considered for admission as new freshmen.

In the event transfer students' grade point averages cannot be determined, their admission may require, in addition to a review of their college performance, standardized examinations and secondary school records.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Life Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the Undergraduate Academic Services division or selected other units.

Transfer students from non-baccalaureate programs will ordinarily be placed in the upper division unit in which they plan to continue their studies. Students admitted to associate degree programs of the School of Technical Careers will be enrolled in that academic unit.

#### ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

For engineering majors, see page 15, for College of Business and Administration majors, see page 50.

Students who have an overall 'C' average as computed by SIU, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to students who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have maintained an overall "C" average and be eligible to continue at the last school attended. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

Students who have graduated with an associate degree in a baccalaureate-oriented program from a two-year institution may enter Southern Illinois University any semester without regard to their average provided they have not taken additional college-parallel work since their graduation. If they have, their admission will be considered on the basis of the University's regular transfer admission standards.

Students applying for admission to the University to pursue baccalaureate programs from programs not so oriented will be considered for admission as follows: (1) a student who has been enrolled in an institution which is accredited by one of the regional accrediting associations or is in candidacy status with one of the regional accrediting associations will be considered for admission on the basis of the regular transfer admission standards and (2) a student who has completed a two-year or equivalent program with a 'C' average in an institution which is not accredited by one of the regional accrediting associations will be admitted if the institution is one recognized by NATTS, AMA, ABET, or similar accrediting bodies recognized by the National Commission on Accrediting or the United States Office of Education. Students who have attended a non-regionally accredited institution and who have not completed two-year or equivalent programs or have less than a C average will be considered for admission as entering freshmen.

Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional work can be completed successfully. Tangible evidence might include: 1) an interruption of schooling for one or more years; 2) military experience; 3) work experience; and 4) previous academic performance.

#### ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall "C" average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended will be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional work can be completed successfully. Tangible evidence might include: 1) an interruption of schooling for one or more years; 2) military experience; 3) work experience; and 4) previous academic performance.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to selected majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.

#### ADMISSION TO THE TEACHER EDUCATION PROGRAM

Advancement to the teacher education certification program requires that the following specific criteria be met. A student is eligible to make formal application to the program with:

1. A minimum of 30 semester hours of completed work including Education 201;
2. An overall grade point average of at least 2.25 (4.0 scale).
3. Completion of GE-D 101 and GE-D 117, 118 or 119 and one additional English course (GE-C or Department of English) with a grade of 'C' or better.
4. Completion with a minimum grade of 'C' since entering ninth grade including work taken in college of:
  - a. four years of English and communication skills. Each three semester hour college composition or writing course equates to one year of high school English. At least three of the four years must be English.
  - b. two years of mathematics sufficient to include the course content of Algebra I. Computer science courses may not be used to satisfy any part of this requirement.
  - c. two years of science. Courses from either the physical or biological sciences will be accepted toward this requirement.
  - d. two years of social studies.

Applications must be submitted in person and must be accompanied by verification that all prerequisites have been met. Students are responsible for submitting high school transcripts to the Office of Teacher Education at the time of application. Applications received through the mail will not be considered. Application forms as well as information about the teacher education program are available from the coordinator of teacher education services in the Office of Teacher Education in the Wham Education Building, room 135.

If a student's application is approved after being reviewed by the coordinator of teacher education services, the student is issued a membership card which entitles the student to begin work in the basic professional education courses which are prerequisite to the professional semester of student teaching. At the end of the first semester of membership, the department offering the student's major is requested to submit a recommendation as to whether or not the student should be retained in the program. Criteria for this recommendation are available from the department or the student's adviser. Failure to obtain approval prohibits the student from continuing with the professional education courses and could lead to suspension from the program. In order to remain in the program and complete the requirements for graduation and teacher certification, the student must attain a 2.50 grade point average in the major and receive



departmental approval. Both of these requirements must be met before final clearance can be given for a student teaching assignment. Students who are not able to meet the criteria of the teacher education program or their major department will be counseled about alternative programs.

#### ADMISSION POLICY TO THE COLLEGE OF ENGINEERING AND TECHNOLOGY

##### First-Time Admission to Engineering (Freshmen):

- A. A student may be admitted to one of the engineering programs unconditionally if he/she fulfills all of the University admission requirements, has an ACT composite score of 23 or greater, and ranks in the upper half of his/her high school graduating class.
- B. Students with an ACT composite score between 20 and 23 must rank in the upper 25% of their graduating class.
- C. In addition to A or B above, all incoming freshmen are required to have completed:
  - 3 years of English (4 years are recommended)
  - 3½ years of Mathematics
    - a. 2 years of Algebra
    - b. 1 year of Geometry
    - c. ½ year of Trigonometry
  - 2 years of Science (1 year of Chemistry and 1 year of Physics are recommended)
- D. Students who do not fulfill the above admission criteria (A,B,C) will be placed in a "Pre-Engineering" classification as described under the heading "Pre-Engineering." Students who satisfy items A and B but do not satisfy item C are automatically placed in the normal "Engineering" category upon completion of the C requirement. Students not fulfilling A, B and C may also be admitted to a non-engineering program and later apply for transfer into one of the engineering programs following completion of the 26 semester hour requirement as described under the heading "Pre-Engineering."
- E. Students with ACT composite scores below 20 are not admissible to any of the engineering programs except under very unusual circumstances and on an individual basis.

##### Admission to Engineering (Transfer Students)

- A. First-time transfer students (from another university, a community college or another SIU academic unit) must have an overall grade point average of at least 2.4\* and at least 24 semester hours of transfer credit. Students without 26 semester hours of transfer credit will fall under freshmen admission requirements.
- B. First-time transfer students with a grade point average between 2.0 and 2.4\* and who are interested in transferring into one of the engineering programs will be admitted to Pre-Engineering. Transfer students with a grade point average between 2.0 and 2.4\* may in special cases be accepted by the department but only upon an individual basis depending upon the ability of the department to accommodate the student demand.
- C. No student whose grade point average is below 2.0 will be admitted to Engineering or Pre-Engineering.

##### Pre-Engineering

All Pre-Engineering students (freshmen and transfers) will be transferred out of the Pre-Engineering classification following completion of at least 26 semester hours at SIU.

Pre-Engineering students will be transferred to an engineering program if they have maintained an overall SIU grade point average of 2.4\* or greater and if 12 of their 26 hours have been in engineering or engineering related courses such as chemistry, mathematics, physics or geology courses which are required for graduation in engineering at SIU. Pre-Engineering students who do not have a 2.4\* SIU average after 26 semester hours will be transferred to Undergraduate Academic Services or the student may elect to seek transfer into another major or academic unit. Such students will be eligible for readmission consideration once they have attained an overall grade point average of 2.4\*.

Students classified as Pre-Engineering are not eligible to register for 300 or 400 level courses offered in any of the engineering departments. The Pre-Engineering classification is only for first-time freshmen or transfer students who do not meet admission conditions stated above.

##### Admission to Technology

Engineering Technology and Industrial Technology students are covered by the present University Admission Policy which requires freshmen to meet certain criteria and which requires transfer students to have a transfer grade point average of 2.0 or above.

### International Students

International students must meet admission requirements comparable to those of native students. While admission credentials such as ACT scores and class rank are not generally submitted by international students, students do submit credentials which reflect their achievements in subject areas such as English, mathematics and science. Therefore, beginning freshmen and transfer students with less than 26 semester hours will be required to submit records which reflect above average achievements in these disciplines in order to be admitted to an engineering program. Transfer students who have earned 26 semester hours or more of transfer credit will be required to have a 2.4 or comparable grade point average. International students will be required to comply with the retention policy of the College of Engineering and Technology.

Students who meet minimum University admission requirements but do not meet those requirements for entrance to an engineering program will be granted provisional admission to the College and be advised as to an appropriate program during the first year. These students must satisfy the requirements previously described for native students in order to transfer to an engineering major.

### SPECIAL NOTE

- \* For a period of time, particular Engineering departments may establish a transfer grade point average greater than 2.4. Those students seeking admission into Electrical Engineering at this time should contact the College Advisement Office to determine the transfer grade point average for entry into this program.

Because interest in engineering classes continues to be exceedingly high, it may be necessary to close admission to selected engineering majors without advance notice.



#### ADMISSION OF INTERNATIONAL STUDENTS (General Requirements)

For engineering majors, see page 16, for College of Business and Administration majors, see page 50.

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are selected upon the basis of their former academic work and the students' financial resources for support during the normal period of time required to reach the objectives of their studies.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed less than two years study in a United States high school, (3) have completed less than two years (60 semester hours) of collegiate training in an accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Test.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States college or university, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination. Immigrant students must also submit a photocopy of their green card with the application for admission.

International students whose secondary school and college records are acceptable for admission purposes must also submit TOEFL scores. Students whose TOEFL score is 525 or higher will be granted unconditional admission. Applicants whose TOEFL scores are below 525 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language at their expense. Sponsoring agencies which enroll international students will be charged an administrative fee of \$100.00 per student per semester.

International students interested in making application to Southern Illinois University should address their inquiries to the Office of Admissions and Records, Southern Illinois University, Carbondale, Illinois 62901.

#### ADMISSION OF SPECIAL CATEGORIES OF STUDENTS

Several types of students are given special consideration when seeking admission to the University. These are described below:

##### ADMISSION OF VETERANS

Veterans are admissible in good standing regardless of their previous academic records provided they have completed no college work since military separation or the college work they have completed since separation/discharge is of "C" quality or better. It is assumed a veteran has graduated from high school or has earned the GED equivalency certificate. A veteran is required to submit all of the necessary academic records to the Admissions Office before his or her application for admission can be processed.

##### BASIC SKILLS AND SPECIAL SERVICES

The University operates two programs in which educationally and socially disadvantaged students are admitted to the University each fall. All four-year applicants who do not meet established admission requirements will have their applications reviewed automatically for consideration to those programs. Those students whose academic records show potential for completing successfully a collegiate program as a result of receiving special assistance will be offered admission to the University.

##### ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS

Adults who have never enrolled in an institution of higher education may enroll in select courses as a non-degree student without submitting all of the academic records required of a regularly admitted student. Students in this category must be high school graduates or have passed the GED Test. Applicants interested in seeking admission as an unclassified student are encouraged to write to the Office of Admissions and Records.

##### EVENING AND WEEKEND PROGRAM

Carbondale area residents may take advantage of the University's evening (after 4:00 p.m.) and weekend credit course offerings through the Evening and Weekend Program offered by the Division of Continuing Education. The application, admission, and registration process is streamlined for such students. Students may enroll for up to a maximum of eight semester hours credit each semester. A reduced fee structure is available. Interested students should contact the SIU Division of Continuing Education directly, at 618-536-7751.

## HOUSING INFORMATION

### REGULATIONS

ALL SINGLE FRESHMEN under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls, or similar privately owned residence halls. The privately owned residence halls must provide facilities, food service, and supervision comparable to on-campus housing.

ALL SINGLE SOPHOMORES under the age of 21, not living with parent or guardian, are required to live in on-campus residence halls or University approved off-campus housing. Sophomore approved housing includes rooming houses and residence hall apartments. Such facilities are not required to provide food service but are required to have University approved adult managers and are inspected and approved by the University.

There are no University regulations for JUNIOR, SENIOR, GRADUATE, MARRIED STUDENTS, VETERANS, OR those students 21 years of age or over on the first day of the semester.

### UNIVERSITY FACILITIES FOR SINGLE UNDERGRADUATES

#### BRUSH TOWERS

The Brush Towers residential area, located on the southeast edge of the SIU campus, consists of two 17 story air-conditioned residence halls (Mae Smith and Schneider Tower). Each hall houses 816 students (male, female, co-ed).

#### UNIVERSITY PARK

The University Park residential area, located on the southeast edge of the SIU campus consists of one seventeen story residence hall (Neely Hall-male, female, co-ed), and three four-story triad buildings (Allen, Boomer, and Wright Halls-male, female, coed). Neely houses 816 students and the triads each house 360 students. (This area is highly recommended for students taking classes at the School of Technical Careers or SIU Airport since the bus service departs from this location). All buildings are air-conditioned and a computer lab is located in the commons building.

#### THOMPSON POINT

The Thompson Point residential area, located on the shores of the SIU Campus Lake, consists of eleven halls with each housing approximately 120 students (male, female, co-ed). All buildings are air-conditioned and a computer lab is located in the commons building.

CONTRACT COSTS - 1986-87 - All Areas      \$1,284/Semester      \$2,568/Academic Year  
There is an additional \$12.00/year housing activity fee.

Inquiries concerning on-campus housing should be directed to University Housing, Supervisor of Contracts, Washington Square-D, SIU; (618) 453-2301, ext. 39.

### UNIVERSITY FACILITIES FOR MARRIED STUDENTS

#### SOUTHERN HILLS

The Southern Hills residential area located on the southeast edge of the SIU campus consists of efficiency, one bedroom and two bedroom furnished apartments for married students.

#### EVERGREEN TERRACE

The Evergreen Terrace residential area located on the southwest edge of the SIU campus consists of two and three bedroom unfurnished apartments for married students.

### MARRIED STUDENT HOUSING COST, 1986-87

Efficiency apartments	\$232/month
Furnished one bedroom	\$252/month
Furnished two bedroom	\$270/month
Unfurnished two bedroom	\$292/month
Unfurnished three bedroom	\$316/month

The University pays all utilities. Interested students should contact Family Housing, Washington Square-B, Southern Illinois University, Carbondale, Illinois 62901; (618) 453-2301, ext. 38.

### OFF-CAMPUS FACILITIES

Single student facilities include residence halls, apartments, rooming houses and trailer courts. Married student facilities include apartments, rooming houses, private houses and trailers. Students may obtain information on off campus facilities through the Off-Campus Housing Office, Washington Square-B, SIU; (618) 453-2301, ext. 43.

## GENERAL HOUSING INFORMATION

**APPLICATION FOR HOUSING:** The application for University Housing for single students is included with the application for admission. Admitted students for whom there is no housing application on file will automatically receive information and applications for housing about three weeks after admission. Priority for University Housing is determined by the date SIU receives the completed housing application.

**TERM OF CONTRACT:** University housing contracts are written for the Fall and Spring semesters and remain in effect for these two semesters. Summer contracts are issued separately. Students who desire housing during both the summer and the fall should submit two separate housing applications.

**GREEK ROW:** This residential area primarily provides housing for recognized sororities and fraternities. Assignment to these areas is by invitation and interested students should contact fraternal organizations or the Inter-Greek Council, 618-453-5714.

**MEAL SERVICE:** In all areas except married student housing and Greek Row, meals are provided on the basis of 20 meals per week, 3 meals each day, 6 days per week, and breakfast and noon dinner on Sundays. Unlimited second helpings are offered. No other food plans are available. A dietary table is available for students with special needs.

**SPECIAL INTEREST GROUPS:** Students may request to be assigned to areas where their special interest can be accommodated, such as intensified study areas, graduate areas, over 21, and University Honors Program areas.

**COED LIVING:** Co-educational living (alternate suites of men and women on the same floor) is available in all areas except the University Park Triads, for students who have reached sophomore standing. Coed housing in the Triads is by floor.

**ROOM FURNISHINGS:** All rooms are equipped with twin size beds, closet space, chest of drawers, desks, study chairs, and draperies. Free weekly linen service provides students with two sheets and one pillow case. Room arrangements are two students per room sharing private bath with adjoining two student room, except University Park Triads which have community showers.

**ROOMMATES:** New students, both freshman and transfer, have the opportunity to select a roommate of their choice before arriving, provided the request is mutual, each student has a signed contract on file with advance payment by April 15, and space exists at the time room assignments are made.



## REGISTRATION AND ADVISEMENT

Two registration periods are available each semester: Advance and Final.

Advance Registration is conducted during approximately eight weeks of the preceding semester. New freshmen and transfer students entering in the fall semester have several weeks during April, May, June, July and August set aside for the purpose of orientation, advisement, and registration. The advance registration period is highly recommended for new freshmen and transfer students as it permits maximum course selection, counseling and campus orientation.

Final Registration is conducted during the last three weekdays preceding the start of the semester. Late applicants and students who did not advance register will complete the advisement and registration process during this period.

A similar procedure is used for advisement and registration for the spring semester and summer session.

### ADVISEMENT

All new students (freshmen and transfers) are notified by mail of advisement procedures. Notices are mailed out for the semester indicated around the following dates: fall, March 15; spring, October 15; summer, March 15.

All new students will receive additional information on the advance registration procedures at the time they receive their advisement appointment. Should a student find it is impossible to keep the advisement appointment he or she should contact the specific advisement unit and suggest an alternative date during the advance registration period.

Re-entry and continuing students must make their own advisement appointment with their academic unit advisement center.

### OFF-CAMPUS ADVISEMENT AND REGISTRATION

Advisement and registration for the fall semester is available off-campus usually twice a year, March (Springfield area), and May (Chicago area). All new students will be notified by mail concerning these special advisement and registration opportunities.

### PROCEDURES

Advance registration usually takes one-half day unless the student elects to take advantage of various proficiency examinations. Parents are encouraged to accompany their son or daughter.

### LODGING AND PARKING

Adequate lodging facilities are available in and near the community at various motels. A list is included in the registration information.

In addition, guest parking permits are included in the registration information packet for use in regular University lots. The Arena parking lot, Student Center lot, and metered stalls on campus are available for campus parking to visitors.

### ORIENTATION: TWO HOURS

Guests are welcome to tour the campus or visit offices related to their special needs (housing, financial assistance, etc.). In addition, the Office of Student Development coordinates scheduled orientation programs to help the new or transfer student become more familiar with SIU each day of advance registration. Through participation at these sessions, students and parents meet with various University faculty and staff depending on the orientation program chosen. A formal orientation program is offered Wednesday through Sunday prior to the start of the fall semester. All students are strongly encouraged to attend. For more information contact the Office of Student Development (618-453-5714).

### ADVISEMENT: APPROXIMATELY FORTY-FIVE MINUTES

A student is advised of requirements and proficiency opportunities, discusses vocational plans, and then selects appropriate courses.

### REGISTRATION: ONE HOUR

The student selects the time his or her classes will meet and obtains an I.D. badge.

## ADVISEMENT CENTERS

	Area code (618)
Undergraduate Academic Services	453-4351
Pre-Major Advisement, Pre-Nursing, Special Admissions	
School of Agriculture	453-3080
College of Business and Administration	536-4431
College of Communications and Fine Arts	453-4308
Art and Design (Allyn)	453-4315
Cinema and Photography (Communications Building)	453-2365
Communication Disorders and Sciences (Communications Building)	453-4301
Journalism (Communications Building)	536-3361
Music (Altgeld Hall)	536-7505
Radio-Television (Communications Building)	536-7555
Speech Communication (Communications Building)	453-2291
Theater (Communications Building)	453-5741
College of Education	453-2354
College of Engineering and Technology	453-2466
College of Human Resources	536-2378
College of Liberal Arts	453-3380
College of Science	536-5537
School of Technical Careers	536-6682
(All majors except:)	
Automotive Technology	985-4110
Aviation Maintenance Tech., Avionics Tech., Aviation Flight	536-3371
Construction Technology	985-4110
Tool and Manufacturing Technology	985-4110

## PRE-ADVISEMENT MATH TESTING

All new freshmen except those admitted to two-year associate degree programs and some transfer students, those who have never taken a college level mathematics course, must take a math placement test prior to advisement and registration for classes. These math tests assist academic advisors in placing students in the proper level of math courses.

All new students will receive information concerning math testing. Numerous testing dates will be available both on and off campus. Normally, students will contact their academic advisement centers to pre-arrange math testing and advisement and registration for the same day.

## COSTS

### TUITION AND FEES

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. The following fee schedule is for the 1986 Fall Semester.

#### ON-CAMPUS UNDERGRADUATE FEE SCHEDULES

Semester Hours Enrolled	Illinois Residents			Non-Illinois Residents		
	Tuition	Student Fees	Total	Tuition	Student Fees	Total
1	\$ 44.55	\$104.06	\$148.61	\$133.65	\$104.06	\$237.71
2	89.10	118.86	207.96	267.30	118.86	386.16
3	133.65	133.68	267.33	400.95	133.68	534.63
4	178.20	148.49	326.69	534.60	148.49	683.09
5	222.75	163.28	386.03	668.25	163.28	831.53
6	267.30	178.11	445.41	801.90	178.11	980.01
7	311.85	192.92	504.77	935.55	192.92	1128.47
8	356.40	207.71	564.11	1069.20	207.71	1276.91
9	400.95	222.52	623.47	1202.85	222.52	1425.37
10	445.50	237.34	682.84	1336.50	237.34	1573.84
11	490.05	252.14	742.19	1470.15	252.14	1722.29
12+	534.60	266.95	801.55	1603.80	266.95	1870.75

All students will pay the full Student Medical Benefit Fee of \$85.00 which will entitle them to full medical benefits at the Health Service. An on-campus student may seek a refund of the Student Medical Benefit Fee within the first three weeks of each semester by contacting the administrative director of the Health Service. The on-campus undergraduate student fee also includes allocations to the Student Medical Benefit Fee, Student Recreation Fee, Athletic Fund Fee, Student Center Fee, Student Activity Fee, Student-to-Student Grant, and Bond Retirement Fee.

The Student-to-Student Grant Program Fee is voluntary. Students may receive a full refund for this fee by requesting such within ten days following full tuition and fee payment.

Payment: Tuition and fees are payable by semester. A student who advance registers receives a Statement of Account and may pay either by mail or in person at the Bursar's Office, by the deadline date specified on the statement. Students who register for classes who do not pay their tuition and fees by the specified deadline will have their registrations cancelled. The University provides students with an opportunity to pay tuition and fees on an installment basis if they choose to do so. There is a nominal service charge for installment payments.

A student holding a valid scholarship is exempt from tuition and fees to the extent prescribed by the scholarship. An Illinois State Scholarship may cover all tuition and fees or it may be a partial award.

Tuition Costs by Year: Full-time Illinois residents will pay \$1,603.10 per year for tuition and fees (fall and spring semesters). Full-time out-of-state (non-residents) students will pay \$3,741.50 per year for tuition and fees.

Total University Charges: Full-time Illinois residents can expect to pay up to \$2,568.00 per year in housing costs bringing total University charges to approximately \$4,171.80 per year for room and board, tuition and fees. Full-time out-of-state students can expect to pay up to \$2,568.00 per year for housing bringing total University charges to approximately \$6,309.50 per year for tuition and fees, room and board.

Textbooks: Students must purchase all textbooks (estimated at \$350 per year).

Personal Expenses: Includes transportation to and from home, entertainment and personal items estimated at \$1,628.00 per year.



## FINANCIAL ASSISTANCE

The Office of Student Work and Financial Assistance aids students in seeking monetary assistance to finance their post-secondary education at Southern Illinois University.

A package of financial aid is prepared for those students who qualify. The package may include scholarships, grants, work, and loans. The financial aid package offered is contingent upon both the availability of program funds and each student's demonstrated financial need as determined by the American College Testing Program Family Financial Statement (ACT/FFS) form.

Grants and scholarships are gift aid which are not repaid to the donor. Loans are repaid after the student leaves school but are offered at a lower than market rate of interest. Student work is offered to all students who desire to earn money while attending SIU. The amount a student may earn is determined by the amount of other financial aid received. The total aid (including work) cannot exceed the cost of attending SIU.

SIU distributed nearly \$60 million in financial assistance last year to approximately 80% of all students. Over 5,000 student workers were employed by the University.

### MAJOR FINANCIAL AID PROGRAMS

SIU participates in the major federal, state, and institutionally-funded programs. This includes aid such as: Pell Grant, ISSC Monetary Award, Guaranteed Student Loan, National Direct Student Loan, Student-to-Student Grant, Supplemental Educational Opportunity Grant, and the Student Work Program.

The Financial Aid Opportunities brochure summarizes the major types of financial aid coordinated through the Office of Student Work and Financial Assistance. The FAO financial aid chart lists over forty types of financial aid including a brief description of each program, the application procedures, and the corresponding deadlines. A copy of this brochure is available upon request.

**Grants.** The major grant programs include the Pell Grant and the Supplemental Educational Opportunity Grant. Both of these grants are based on financial need as determined by the ACT/FFS.

**Scholarships.** The largest scholarship program is the Illinois State Scholarship Commission Monetary Award. This scholarship is also based on need as determined by the ACT/FFS and pays tuition and fees or a portion thereof.

SIU distributes several scholarships based on academic achievement to new freshmen and Illinois community college transfer students (associate degree graduates only). These scholarships include the SIU Academic Scholarship, the Presidential Scholars Award, the SIU Foundation Scholars Award and the SIU Foundation Merit Award. Students eligible to receive these award will be contacted directly by the New Student Admission Services.

Recipients of merit scholarships are selected each spring semester by academic departments and colleges of the University. Also, a limited number of private scholarships are available during the year in some academic departments. For more information, contact your academic department.

Students interested in seeking a private grant or scholarship should check as many sources as possible including high schools, local clubs and civic organizations, businesses, church groups, alumni organizations, commercial lending institutions, and public libraries.

**Loans.** The major loan programs include the Guaranteed Student Loan (GSL), the Parental Loan for Undergraduate Students (PLUS), and the National Direct Student Loan (NDSL). Students must have a current ACT/FFS on file for loan consideration and processing. The NDSL is borrowed from the school. Since these funds are limited, students are encouraged to mail their ACT/FFS before April 1, 1987. The GSL and PLUS loans are borrowed from a hometown bank or local lending institution.

**Employment.** To apply for an on-campus student work job, students must have a current ACT/FFS on file. Students can work a maximum of 20 hours per week at the prevailing minimum wage. Once students arrive on campus, they should review the "Job Listing Board" in the Student Work and Financial Assistance Office to determine which jobs interest them. Referrals will be given to students to interview with prospective on-campus employers. In addition, a representative is available to give referrals for part-time off-campus jobs. Approximately 3,000 students work off-campus during an academic year.

**Other Types of Aid.** Veterans, social security, railroad retirement, and civil service retirement benefits are also available to those who qualify. The Financial Aid Opportunities brochure gives more information on these and other financial aid programs.

## APPLICATION FOR FINANCIAL ASSISTANCE FOR THE 1987-88 ACADEMIC YEAR

**SPECIAL NOTE TO STUDENTS:** Because of the Federal Reauthorization Process, Gramm-Rudman-Hollings, and other congressional bills, our office expects major changes in some financial aid programs for 1987-88. One of the major changes expected involves the application process for the Guaranteed Student Loan. At the time of printing this publication, final rules and regulations are pending. Therefore, please contact our office for the most current information. To determine financial need, it is necessary for students with their parents to complete and submit the 1987-88 ACT/Family Financial Statement (ACT/FFS). To have SIU receive a copy of the Need Analysis, students must enclose the ACT processing fee and enter the SIU school code (1144). SIU does not accept the College Scholarship Service Financial Aid Form (CSS/FAF). The 1987-88 ACT/FFS allows students to apply for the major programs coordinated through the Office of Student Work and Financial Assistance. Students should complete and mail the 1987-88 ACT/FFS form as early as possible since Campus-Based Aid funding is limited and distributed to eligible students on a first-come, first-served basis. Priority consideration for Campus-Based Aid will be given to those students who complete and mail their 1987-88 ACT/FFS before April 1, 1987. ACT/FFS forms are available in January and may be obtained from local high schools, community colleges or from Student Work and Financial Assistance.

**Transfer Students.** Students who have attended another college or university will be classified as transfer students. Federal regulations require that transfer students, applying for financial aid, must have a Financial Aid Transcript sent to Student Work and Financial Assistance indicating all financial aid received from schools attended previously. Even though students may not have received financial assistance, federal regulations mandate that our office have that verification. No aid will be awarded until all Financial Aid Transcripts are received. Financial Aid Transcript forms may be obtained from Student Work and Financial Assistance. Students who receive the National Direct Student Loan, Supplemental Educational Opportunity Grant or student work must reapply for those awards by submitting the 1987-88 ACT/FFS. Students who receive a Guaranteed Student Loan (GSL) or a Parental Loan for Undergraduate Students (PLUS) should contact Student Work and Financial Assistance to determine loan eligibility and application procedures. Transfer students who receive Pell Grant must obtain a duplicate set of the Student Aid Report (SAR) from the Pell Grant Program to submit to Student Work and Financial Assistance. Transfer students who receive ISSC awards must change the school name on the Pell Grant Student Aid Report and resubmit to the Pell Grant Program to be forwarded to ISSC. ISSC will recompute and adjust the ISSC award to reflect the cost of attending SIU.

**Financial Aid Timetable.** After mailing the 1987-88 ACT/FFS, students should expect to receive the following responses:

1. **Student Financial Aid Report (SFAR).** Two to three weeks after mailing the ACT/FFS, students will receive an SFAR containing information included on the FFS form. Since eligibility for financial aid is based on submission of accurate data, students should carefully review the SFAR for any errors. If necessary, students should correct the SFAR and resubmit to ACT for recalculation. ACT will mail a similar report to the Pell Grant Program who will forward the information to the Illinois State Scholarship Commission. ACT will also mail the information to the institutions listed on the FFS.
2. **Student Aid Report (SAR).** Approximately four weeks after mailing the ACT/FFS, students will receive an SAR from the Pell Grant Program. The SAR will contain the information included on the FFS and will indicate whether students qualify for the Pell Grant. Students should review the SAR for errors and, if necessary, make corrections on Part 2 of the SAR and resubmit to the Pell Grant Program for recalculation. If eligible, students should submit all pages of the SAR, to Student Work and Financial Assistance. Student Work and Financial Assistance cannot process a Pell Grant Award until all pages of the SAR are submitted.
3. **Illinois State Scholarship Commission Monetary Award Letter (ISSC).** Approximately six weeks after mailing the ACT/FFS, students (Illinois residents only) will receive a Notification Letter from the Illinois State Scholarship Commission which will indicate whether students are eligible to receive the ISSC Monetary Award. Students may retain the Notification Letter for their own records.
4. **SIU Financial Aid Award Letter.** Approximately 90 days after receiving a student's Need Analysis, and assuming the ACT was mailed by the April 1 priority processing date, Student Work and Financial Assistance will mail a Financial Aid Award Letter to students eligible for Campus-Based Aid. This letter is an offer of assistance and must be signed and returned to Student Work and Financial Assistance by the date indicated. Student who do not qualify for Campus-Based Aid may want to consider student work and/or loans. (Students should contact SWFA during the spring semester for summer financial aid information).

**Academic Progress Standards for Financial Assistance.** Southern Illinois University requires that a student be making "satisfactory progress" toward a degree if that student wishes to receive financial aid funds. A student is making "satisfactory progress" toward a degree if successfully meeting two basic academic standards. First, a student must complete a reasonable number of credit hours toward a degree each academic year. Second, a student must maintain a scholastic standing, derived from grades, that allows for continued enrollment at the University under current academic guidelines. A copy of the Policy on Satisfactory Progress is available upon request from Student Work and Financial Assistance.

Students and counselors desiring additional information should contact: Student Work and Financial Assistance, Woody Hall, B Wing, Third Floor, Southern Illinois University, Carbondale, IL 62901 or call (618) 453-4334.



## STUDENT SERVICES

Career Counseling Center, 618-536-2096; Career Planning and Placement Center, 618-453-2391; and Testing Office, 618-536-3303

This trio of offices provides students the opportunity to explore occupations and develop vocational interests, examine individual potentials and interests, examine job market opportunities, and be assisted in placement into a career. Vocational and educational counseling, testing, and placement services are provided. Students may also arrange for programs such as the Graduate Record Examination, Miller Analogy test, Law School Aptitude test, etc. See also section on "Entry Level Job Titles."

Counseling Center, 618-453-5371

The Counseling Center is staffed with professional counselors qualified to assist students with personal development and resolution of problems. Personal problems, marital adjustment difficulties, social skill development, parental conflict, and sex role awareness development are areas of frequent concern to students. Counseling is provided through one to one student-counselor contact or in group discussion within an atmosphere of confidentiality and trust.

Office of Women's Services, 618-453-3655

The purpose of the Office of Women's Services, a component of the Counseling Center, is to maximize the opportunities and experiences of women who choose to attend SIU. One of the most important functions of the office is to facilitate personal growth that can result in assisting women in recognizing and developing their potential for success--both during and after college. The services fall into six categories: 1) a clearinghouse for resources and referral information; 2) development and implementation of outreach programming (i.e., workshops, seminars, groups, lectures) on topics relevant to women; 3) consultation for other services that are working with women in the University and community; 4) advocacy and support for women students, including providing programs designed specifically to assist adult women students who are returning to school or who are furthering their education; 5) coordinating the Campus Safety Program, which includes Women's Safety Transit and women's self defense classes; and 6) library services which make available many books and articles on women's issues not found elsewhere on campus.

Disabled Student Services, 618-453-5738 (Voice or TTY)

This office coordinates and provides support services to disabled students including those who are non-ambulatory, semi-ambulatory, visually impaired, hearing impaired, learning disabled, or otherwise permanently disabled. A wide range of services are offered including: academic support services, handicapped van transportation, other special transportation and parking arrangements, modified housing, adapted recreational activities, wheelchair repair, and personal attendant referrals. The academic support services include: test proctoring services for students needing additional time or reading or writing assistance to complete regular course exams; pre-enrollment planning for support services; readers; taped texts; special equipment; mobility training for the visually impaired; notetakers, interpreters, special counseling, and communications training for the hearing impaired. The Illinois Department of Rehabilitation Services (IDORS) maintains an on-campus office, and the DSS office has close liaison with IDORS to facilitate admission and enrollment of disabled students sponsored by IDORS. The SIU campus is highly accessible, and all programs, services, and activities are available to disabled students. The disabled individual applies for admission in the same manner as any other applicant. The nature or severity of disability have no bearing on the admission determination. Interested disabled persons are strongly encouraged to formally apply for admission as far as possible in advance of the semester starting date in order that all necessary support services, financial assistance, special equipment, and housing arrangements may be arranged in advance.

Clinical Center Achieve Program, 618-453-2595

The Clinical Center Achieve Program is an academic support program for learning disabled students enrolled at SIU. The program is self-supportive and participation is voluntary. Students in the Achieve Program are completely mainstreamed into the regular college curricula. The academic support provided by the Achieve Program is three-fold: (1) Tutorial, (2) Compensatory, and (3) Remedial.

1. Achieve members are computer matched to tutors based on academic strengths/weaknesses and individual course selections.
2. Achieve members are provided with taped textbooks from Recordings for the Blind if their disability is in the area of reading. They are also given the opportunity to take their exams with a proctor at the Achieve Office. Proctored exams may be orally administered or simply untimed depending upon the needs of the individual student.
3. Remedial courses are also available for those desiring to improve their deficit areas. These include: (1) Reading Comprehension strategies, (2) Notetaking/listening skills, and (3) Paragraph/essay writing skills. Participation in remedial courses is not mandatory and often varies from semester to semester depending upon the student's personal schedule and course load.

Students interested in participation in the Achieve Program must apply to the University as well as to the Achieve Program. Early application to the Achieve Program (sophomore-junior year in high school) is highly recommended based on the large number of excess applications each year. Requests for information should be addressed to: Clinical Center Achieve Program, Pulliam Hall, SIU, Carbondale, IL 62901.

*Application fee:	\$ 50.00 (one time fee/nonrefundable)
*Diagnostic fee:	\$ 500.00 "
	\$ 550.00
*Fees for academic support:	\$1500.00 (1986 fall semester)
	\$1500.00 (1987 spring semester)
	\$3000.00

Support fees are refundable anytime prior to the beginning of the semester.

\*Figures are based on the 1986-87 academic year and subject to change.

#### Center for English as a Second Language, 618-536-3385

The Center for English as a Second Language offers English language training to non-native speakers of the language. The program runs year round and is administered by and with the Department of Linguistics, an academic unit of the College of Liberal Arts. The students studying at the Center plan in most cases to enter academic programs at the graduate or undergraduate level upon completion of their training. The presence of approximately 150 students every term from a wide variety of cultures adds a significant international presence to the campus. Opportunities are provided for American students to meet with CESL students as a means of enriching their stay at Southern Illinois University at Carbondale.

#### STUDENT ACTIVITIES

The Office of Student Development (618-453-5714) sponsors a wide array of programs, activities, and services designed to provide students with opportunities that enhance and complement the traditional classroom learning experience.

Student Orientation Programs. The Office of Student Development provides a comprehensive orientation program for new students and their parents. These programs are designed to assist students in making a smooth transition into the University community and to introduce both new students and their parents to the University's vast resources, services, and programs. Orientation sessions are offered prior to the beginning of each semester and on new student advisement and registration days. Upperclassmen, known as Student Life Advisers (SLA's), serve as orientation peer advisers to help the new student learn about the campus and its services. The Student Orientation Committee is available year round to assist students.

It's MAGIC! The purpose of Project MAGIC (Maximize Academic Growth in College) is to help freshman students derive the greatest benefit from the people, programs, and facilities at SIU. This is done by providing interested freshmen with the opportunity to develop a friendly and helpful relationship with a member of the University faculty or staff - a "mentor" - who can assist the new freshman in developing career and academic goals, in learning how to maximize the educational opportunities available at SIU, and in becoming acclimated to college life.

SIU Parents Association. Open to all parents of SIU students, the newly organized Parents Association provides opportunities for parents to become better informed and more positively involved with their student's education and University experiences. The nominal annual family membership fee entitles parents to a quarterly newsletter, special event programs, and a number of University and community discounts.

Registered Student Organizations. The Professional staff of the Office of Student Development works with the more than 350 Registered Student Organizations (RSO's) on the campus in the areas of fiscal management, organizational matters, and University policies and procedures. Among the 350 RSO's are student governmental groups, coordinating councils, public interest groups, fraternities and sororities, publication and media groups, scholastic and professional honoraries, departmental clubs, special interest groups, religious organizations, and sports and recreation clubs.

Black Affairs Council. Black Affairs Council (BAC) serves as the coordinating and governmental body for the 16 Black student organizations on campus. BAC assumes a major responsibility for programming social, cultural, and educational programs for Black students at SIU.

Inter-Greek Council. Inter-Greek Council (IGC) is the activity coordinating council for the University's 13 social fraternities and 8 social sororities. Sub-councils include the Inter-Fraternity, Panhellenic Council, and Pan-Hellenic Council. The SIU Greek System promotes leadership, scholarship, and service, offering students an opportunity to enhance their University experience. Rush, or membership recruitment, is sponsored at the beginning of fall and spring semesters, as well as at designated times throughout the year.

Mobilization of Volunteer Effort. Mobilization of Volunteer Effort (MOVE) serves as a clearing house to coordinate student volunteer interests with the needs of over 75 service organizations on campus, in Carbondale, and in communities within a six-county area.



Credit for Programming. In cooperation with various academic units, the Office of Student Development provides opportunities for students to receive academic credit for their participation in student activities and student organizations. Opportunities available include leadership development courses for fraternity and sorority members, community service-learning programs for MOVE volunteers, leadership development seminars for orientation Student Life Advisers, and undergraduate and graduate internships.

Rainbow's End Preschool. Rainbow's End is a comprehensive day care, child development center designed to serve the children, ages six weeks to eight years, of SIU students, faculty, and staff members. The center, which is staffed by qualified professionals, is licensed by the Illinois Department of Children and Family Services and is a participant in the State of Illinois Food Reimbursement Program. Rainbow's End is open from 7:30 a.m. to 5:30 p.m. each day the University is in session. Tuition and fees are assessed according to the number of hours for which the child is enrolled and are based upon a sliding parental income scale. Rainbow's End is located at Lakeland School, 925 South Giant City Road in Carbondale, telephone 529-2271.

Touch of Nature, 618-529-4161

The University's Touch of Nature Environmental Center is a 3,100 acre facility located approximately 8 miles southeast of campus. As a unique outdoor living-learning center, it is unequalled in size and scope in the midwest. Serving both the entire University and the public, the Center's expansive residential facilities and programming components provide both credit and non-credit opportunities. Rustic residential facilities include two fully equipped camps with large dining, meeting, and summer and winter sleeping accommodations.

As a model facility for experiential education research and recreation the Center offers five major year-round programs. These are conferences for business, industry, educational and other agencies; environmental education workshops; residential camping programs for the young and elderly; wellness lifestyle; advocacy for high-risk populations; and Wilderness Adventure Programs comprised of Spectrum, Underway and Southern Outdoor Adventure Recreation (SOAR). In the summer time, the two camps provide programs for handicapped children and adults, and for functionally-able people of all kinds.

The Center also serves as a field site for such departments as botany, forestry, recreation, special education, rehabilitation, zoology and administration of justice. Internship and practicum credit is available.

Office of Intramural-Recreational Sports, 618-536-5531

The Office of Intramural-Recreational Sports is available to provide students, faculty, staff, alumni, their families and guests with a wide variety of interesting and enjoyable recreational activities. Included in these activities are over 60 intramural sports programs, 30 sport clubs, and numerous informal programs such as basketball, swimming, tennis, racquetball, badminton, boating, weight training, dancercise, etc. In addition, a recreational information center (LES) and an outdoor recreational equipment rental program are available in the Student Recreation Center.



## INTERCOLLEGIATE ATHLETICS

Southern Illinois University continues to boast one of the country's best all-around sports programs for men and women. The Salukis compete within Division I of the National Collegiate Athletic Association (NCAA) in all but one sport. In football, SIU holds Division I-AA status.

Long known for its well-balanced program, and particularly so for sports such as baseball, track and field, swimming, and gymnastics, SIU's basketball and football programs have also established strong tradition. In 1983, the Salukis claimed the NCAA Division I-AA national football championship before a vast television audience and in 1967 claimed the National Invitation Tournament basketball title.

Just this past season, SIU's gymnastics team finished seventh in the NCAA national championship meet, an event past teams have won four times, while Saluki swimmers were 17th, the 25th time in the past 27 years that SIU has been among the top 20 teams at the NCAA finals.

Also, SIU's baseball team won the Missouri Valley Conference championship and is looking for a return ticket to the College World Series where the Salukis have made five previous trips.

In addition, SIU has fine cross country, golf and tennis programs which challenge annually for league honors in the Missouri Valley Conference.

Many former Salukis have distinguished themselves in almost all sports, most notably Walt Frazier, who let SIU to its NIT title in 1967. Others include Jim Hart, third-ranking passer in NFL's all-time history; Dave Stieb, Toronto Blue Jays' pitching ace and a starter in both the 1983 and 1984 All-Star games; current NFL stars wide receiver Kevin House with Tampa and defensive back Terry Taylor with Seattle; world-class 400-meter champion Michael Franks; current national gymnastics champion Brian Babcock and others.

SIU's intercollegiate program for women, one of the nation's oldest and most respected, is part of the new Gateway Collegiate Athletic Conference that was founded in July, 1982. The GCAC is a ten-school conference that features five Illinois schools--Illinois State, Bradley, Eastern Illinois, Western Illinois and SIU--as well as Wichita State, Southwest Missouri State, Northern Iowa, Indiana State and Drake.

The GCAC has emerged as one of the nation's stronger conferences. Most member schools have had nationally recognized women's programs featuring a broad array of sports for years. In 1985-86, conference champions were granted automatic berths to the NCAA Division I Nationals in volleyball and basketball.

SIU captured conference championships this past year in basketball, golf and outdoor track while finishing second in volleyball, indoor track and swimming. For the first time, the Saluki women won the Commissioner's Trophy in the Gateway Conference which is annually awarded to the member school that reaps the highest finishes in all league championships during the school year.

In swimming, SIU repeated its fifth place finish at NCAA Nationals despite the graduation loss of two four-time All Americans and the absence of an NCAA diving champion. Not only did the Saluki women finish in the Top Ten at Nationals for the fifth season in a row, Bailey Weathers, SIU's rookie skipper, was named NCAA Women's Coach of the Year by his peers.

In basketball, the Salukis had their best season ever, winning 23 straight games and finishing with a 25-4 record. SIU became the first Gateway Conference team to complete league play unbeaten (18-0) and qualified for its first NCAA Tournament. During the season, the Salukis were ranked in both AP Coaches and "USA Today" polls. Cindy Scott guided SIU to its fourth consecutive 20 win season and was named Coach of the Year (District IV) by both the Women's Basketball Coaches Association and the Gateway Conference.

In golf, SIU won its second Gateway crown in the past three years and three Saluki players were named All-Conference. In softball, SIU enjoyed another 20 win season. In indoor track, SIU had the MVP at the Gateway meet where the team earned its highest finish ever. In the final year for women's gymnastics at SIU, the Salukis were one of only thirty teams nationally to qualify for an NCAA Regional.

In the classroom, program participants in eleven sports maintained a cumulative grade point average of 2.88. For the third year in a row, SIU had more female athletes cited for academic excellence by the Gateway Conference than any member school. Lisa Cummins became SIU's fourth Academic All-American to be selected by the College of Sports Information Directors of America (CoSIDA).

Dr. Charlotte West, longtime women's athletic director, was selected to the NCAA Council. She is one of only 22 individuals representing Division I schools nationwide who now serves on the highest legislative body for intercollegiate sports in the country.

Intercollegiate Athletics for Women (IAW) actively encourages female students to participate in one or more of its ten varsity sports. Its athletes annually match talents with the nation's best in basketball, cross country, field hockey, golf, softball, swimming and diving, tennis, indoor and outdoor track and field, and volleyball. Program participants benefit from the personal instruction of an established coaching staff and from the auxiliary services of a professional support staff while enjoying a wide range of competitive opportunities. Additionally, those in the

program have daily access to the ultra modern equipment and facilities of Davies Gym, the traditional home of the SIU women's program, where a \$3.25 million renovation was completed in August, 1982.

For SIU students interested in obtaining work experience in areas of athletics, student work positions are generally available for training aides, team managers, clerical assistants, sports information and promotional aides, and facility and equipment personnel.

Coaches (Men's Athletics)

Baseball:	Richard Jones
Basketball:	Rich Herrin
Cross-Country:	Bill Cornell
Football:	Ray Dorr
Golf:	Darren Vaughn
Gymnastics:	Bill Meade
Swimming:	Doug Ingram
Tennis:	Dick LeFevre
Track:	Bill Cornell

Coaches (Women's Athletics)

Basketball:	Cindy Scott
Cross Country:	Don DeNoon
Field Hockey:	Julee Illner
Golf:	(Now Open)
Softball:	Kay Brechtelsbauer
Swimming & Diving:	Bailey Weathers
	Tom Wentland
Tennis:	Judy Auld
Track & Field:	Don DeNoon
Volleyball:	Debbie Hunter

Athletic scholarships are awarded in all sports. Applicants interested in obtaining more information on athletic scholarships are encouraged to contact the coach of the respective sport.

Intercollegiate Athletics for Men

Telephone:	618-453-5311
Football Office:	618-453-3331
Location:	Arena 118

Intercollegiate Athletics for Women

Telephone:	618-536-5566
Location:	Davies Gym

## MOTOR VEHICLES AND BICYCLES

### REGISTRATION

All motor vehicles (and bicycles) operated on campus must be registered with the University Parking Division. An eligible student may register only his or her own vehicle or a vehicle of a member of his or her immediate family. Only eligible students may park on campus.

### ELIGIBILITY

Graduate students and the following categories of undergraduate students may apply for permission to use, operate, park, or possess motor vehicles on campus during posted hours.

1. Juniors and seniors (56 credit hours or more).
2. Veterans with two years of military service.
3. Married students.
4. Students residing in the home of parents or guardian.
5. A student who requires a motor vehicle for reasons of health or physical condition as certified in writing by Specialized Student Services.
6. A student not covered by 1 through 5 preceding whose reason for requiring a motor vehicle is judged valid by the dean of students and so certified in writing.

### APPLICATION AND FEE

Each applicant must bring to the Parking Division the following four items: 1) a valid operator's license, 2) vehicle registration card or notarized license-applied-for receipt, 3) proof of liability insurance, and 4) a current University identification card. Dealer license plates are not acceptable for motor vehicle registration. If a parking decal is purchased, a fee is charged and is determined by the type of decal an applicant is eligible for and receives, currently \$2-\$10.

Yellow registration decals will be issued for \$2.00 upon proper application.

NOTE: Decals issued, according to color, indicate the nature of any parking privileges permitted the holder.

All decals are valid until September 1, or until revocation or loss of eligibility. The extent of the motor vehicle privilege granted to any person shall be based on need or advanced academic standing, in general accordance with the following criteria:

1. First opportunity to obtain blue decals (\$30) will be granted to full-time employees and to students whose health or physical condition require the privileges thereof. Handicapped students will be assessed \$10 for the blue decal.
2. All employees and students eligible in accordance with any of the categories mentioned under ELIGIBILITY may apply for red decals (\$10).
3. A yellow decal serves as evidence of the proper registration of a motor vehicle by an eligible student. It authorizes parking on campus in lots 24 (Campus Lake), 56 (Arena), and at the Student Center meters during the posted hours.
4. Green storage permits will be available to students residing on campus who receive exceptions to park on the campus from the Office of the Dean of Student Life. These permits will be valid only in parking lots 23, 59, and 100. They will not be valid in other parking areas on campus including loading zones and parking meters.
5. Temporary permits may be issued in unusual circumstances, and can be obtained from the Parking Division Office.
6. Guest permits are available to University visitors and offices, guests of University housing residents and guests of the Baptist Student Center free of charge.
7. 24-hour parking is available the FIRST FIVE DAYS of any term ONLY in lots 56, 59 and 100. Until a parking decal is purchased, DO NOT park in any other area or you will be ticketed.
8. Bicycle decals will be issued for a \$2.00 fee upon application.

For additional information or parking brochure, contact:

University Parking Division  
Washington Square Building D  
Southern Illinois University  
Carbondale, Illinois 62901  
Phone: 618-453-5369



## UNIVERSITY RECOGNITION OF HIGH SCHOLASTIC ACHIEVEMENT

Dean's List. At the end of each semester, a dean's list is prepared. The criteria for inclusion on the dean's list are established by each of the academic units. To be recognized as being on the dean's list, the student must have been in attendance full-time (12 semester hours or more) and must have earned the average for the semester which has been specified by the academic unit. If the student has met the criteria established, a notation will appear on the grade slip at the end of the semester. The dean's list is recognition for a particular semester. It does not take into consideration the student's complete record.

University Honors Program. The University Honors Program is explained elsewhere in this chapter. Successful participants in all campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the University Honors Program, receive recognition on the academic record at the time the degree is recorded and on the diploma.

Departmental Honors. Honors courses, individual honors work, and honors curricula, all designed to serve the student with high scholastic potential, are offered by departments in the School of Agriculture, the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or academic unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the student's major. Some honors programs require a comprehensive examination at the end of the junior year and again at the end of the first semester, but not from one school year to the next. Successful completion of a departmental or academic unit honors program is indicated on the academic record at the time the degree is recorded and on the diploma, thus, departmental honors in economics.

Scholastic Honors Day. Each spring a Scholastic Honors Day convocation is held to honor students exhibiting high scholastic achievement. All students who have maintained a cumulative grade point average of 3.50 or higher, and who have been full time students during the entire academic year, are honored at this time. A 3.50 grade point average is required for all work taken at Southern Illinois University at Carbondale, and in the case of transfer students, the cumulative average must be at least 3.50, also. Each academic unit has its own convocation and each student is recognized individually on this day.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election offer recognition and membership based upon scholastic achievement. Election or selection to most of these organizations is noted at the Scholastic Honors Day ceremonies. The following are examples of some of these organizations: Alpha Epsilon Rho, Alpha Lambda Delta, Beta Alpha Psi, Beta Gamma Sigma, Kappa Omicron Phi, Pi Mu Epsilon, Pi Omega Pi, Tau Beta Pi, the Liberal Arts and Sciences Honors Society, and the Honor Society of Phi Kappa Phi. Selection to membership in these organizations is not reflected on the academic record or diploma.

University Honors/Departmental Honors Recognition at the Time of Graduation. Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75-3.89 receive University high honors; and those with 3.50-3.75 receive University honors. These averages apply to all work at Southern Illinois University at Carbondale, and in the case of transfer students, the averages apply to the cumulative record, also. Whichever of the University Honors apply, plus graduation with departmental honors, are recorded on the student's academic record at the time the degree is recorded and on the diploma.

## PROGRAM FLEXIBILITY FOR THE STUDENT

Southern Illinois University at Carbondale offers students a wide variety of programs on all higher educational levels. In addition, the University gives constant attention to methods whereby it might better serve present day educational needs. Described below are opportunities provided students to either earn credit through means other than the traditional class-room method or develop programs better suited to individual student needs than already established programs. While greater flexibility is the goal, the University exercises appropriate supervision to ensure that flexibility is accompanied by educational soundness.

### CREDIT BY MEANS OTHER THAN CLASSROOM ATTENDANCE

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

#### HIGH SCHOOL ADVANCED PLACEMENT PROGRAM

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Entrance Examination Board. To receive credit, students must earn a grade of 3, 4, or 5.

Ordinarily, the maximum credit granted through advanced placement examination is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

The following courses are those in which a student may currently earn credit through the Advanced Placement Examination of the College Entrance Examination Board:

1. Physics: Consult Physics Department Chairperson
2. Chemistry: Chemistry 222A (4 sem. hrs.) and 222B (4 sem. hrs.)
3. Biology: GE-A 115 (3 sem. hrs.)
4. History: American - GE-B 300 (3 sem. hrs.) and GE-B 301 (3 sem. hrs.)
5. English: GE-D 101 (3 sem. hrs.)
6. Foreign Languages: Consult chairperson, Department of Foreign Languages and Literatures
7. Mathematics: Calculus AB: Mathematics 150 (four sem. hours). Calculus BC: Mathematics 150 & 250 (8 sem. hours)
8. Music: Consult Director, School of Music
9. Art: Consult Director, School of Art

#### COLLEGE LEVEL EXAMINATION PROGRAM

Through the General Examinations of the College Level Examination Program (CLEP), students may apply for credit which will substitute for General Education courses. With a score of 520 or higher on the appropriate examination, it is possible for students to receive six semester hours of credit in each of the three fields of natural sciences, social sciences and history, and humanities.

A score of 580 or higher is required to pass the mathematics test. With this score, students may earn four hours of credit which will fulfill the General Education mathematics requirement.

A student who scores 675 or above on the CLEP English examination will receive five semester hours credit (three semester hours GE-D 101 and two semester hours GE-D 117). A score of 650 to 674 entitles a student to (a) advanced placement in GE-D 120, Freshman Honors Composition, and (b) five semester hours credit upon the satisfactory completion of GE-D 120 with a grade of C or higher (three semester hours GE-D 120 and two semester hours GE-D 117).

Transfer students who enter SIU with CLEP credit on their transcript for all but English will receive that credit here with no reduction in hours. Transfer students desiring CLEP General English credit must submit an official score report for evaluation.

If, prior to taking the CLEP examination, students have received a grade or audit in college level work in any discipline included in the CLEP exam or if they have enrolled in such a course, they shall be ineligible for credit. An exception to this rule is made in the case of students who enroll in the Early Admission programs. Such students receive university credit for courses taken during the Early Admission experience, and for the CLEP credit earned. An exception is also made for those students who previously received a grade or audit in a college level Black American Studies course (since this subject matter is not included in the CLEP tests). Such students will receive both course credit and CLEP credit earned. The science exam includes botany, microbiology, physiology, zoology, chemistry, physics, earth science, geography, and all General Education Area A courses. The social sciences and history exam includes western civilization, American history, Afro-Asian civilization, world history, political science, economics, anthropology, sociology, social psychology, social studies, and all General Education Area B courses. The humanities exam includes literature--poetry, fiction, drama, non-fiction, creative writing; films and performing arts; art--art appreciation, art history, architecture (past and present); music--classical, modern or jazz; humanities--all general humanities courses; all General Education Area C courses; philosophy--aesthetics, ethics, general survey. The mathematics test includes all college level mathematics.

Students may be exempted from all General Education requirements if they (1) pass all five CLEP General Examinations before entering the University with these minimum scores: natural sciences, social sciences, and humanities--520; English--675; and mathematics--580, and (2) become members of the University Honors Program. No retroactive extension of this CLEP privilege will be allowed.

For further information, students should consult their academic advisor.

CLEP examinations should be taken at one of the national testing centers and the results are then forwarded to the Office of Admissions and Records for evaluation.

#### PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.

2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Entrance Examination Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)
3. Upon passing proficiency examinations students are granted course credit and receive a Pass grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a Fail grade. This results in no penalty to the students. They will not receive credit and their records will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be filed in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Nor may they take a proficiency examination in a course in which they have previously received a grade.
5. No credit granted by proficiency examinations will be recorded until the student has earned at least 12 hours of credit of 'C' grade or above in residence at Southern Illinois University at Carbondale.

#### CREDIT FOR WORK EXPERIENCE

Work experience in the form of internships or student teaching is a common instructional technique. Southern Illinois University also permits certain undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major department. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.



## SPECIAL PROGRAMS

### THREE-YEAR BACCALAUREATE DEGREE PROGRAM

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make the fact known to their academic advisors at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

### COOPERATIVE EDUCATION

The Cooperative Education Program, included in the Career Planning and Placement Center, is an optional educational pattern that provides an opportunity for students to alternate periods of academic study with periods of off-campus employment related to the student's academic majors or career goals. Periods should be of sufficient duration to provide meaningful classroom and off-campus experiences. Cooperative education provides students an opportunity to earn funds that may be needed to support and complete their education, while it gives them off-campus experiences that are closely integrated with and that enrich their total education.

### UNIVERSITY HONORS PROGRAM

The University Honors Program is designed to enable academically talented undergraduate students to take specially designed and challenging classes; to fulfill University and college requirements by participating in independent studies, colloquia and advanced courses; and to elect interdisciplinary, extracurricular, and cocurricular activities sponsored and administered especially for academically qualified students. Some special scholarships and internships are available to University Scholars.

Honors sponsors and University Honors staff assist qualified students in designing individualized programs tailored to needs, interests, and talents.

Membership in the University Honors Program is granted to entering freshmen who apply for membership, who graduate in the top 10% of their high school graduating class, and who also have an ACT composite score higher than the 89th percentile. The director of honors opportunities may also admit a freshman to membership in the University Honors Program on the basis of other factors, including high school experiences, letters of recommendation, or other evidence of exceptional promise. Membership may be granted to other than entering freshmen who apply for membership and who have a superior academic record such as a cumulative grade point average in the upper 10% for students at a comparable point in their academic studies.

Members of the University Honors Program are designated as University Scholars. Retention in the University Honors Program depends upon maintaining a 3.25 cumulative grade point average in all coursework and no failing grades in honors courses. Students are kept aware of their status in the program at all times.

University Scholars should enroll in an average of one honors experience per semester and maintain normal progress toward a degree. Normal progress is defined as 24 semester hours per academic year. A minimum of 15 hours of honors work is required as a University Scholar. A University Scholar not engaged in a departmental honors program must complete an honors thesis during the senior year. Substitutions for this requirement may be arranged for at student in a major which does not allow curricular flexibility.

University Scholars may complete the General Education requirements of the University by enrolling in advanced courses in departments which offer General Education classes. Individual options may be exercised which fulfill the spirit of General Education requirements but, to challenge the University Scholar, may depart from standard University requirements. University Scholars are permitted to waive some University requirements when they have CLEP scores at an appropriate level.

Students transferring to Southern may join the honors program if they bring a 3.25 average for all previous college work. These students may have already completed many of their general education requirements, but should profit from membership in the program by taking independent study courses or seminars for elective credit. The best way to determine how membership may benefit a student is through discussion with the program staff. Students may participate in trips, use typewriters, computer terminals, and study rooms at the honor house, and perhaps funding for modest projects completed for honors requirements.

Baccalaureate degrees for University Honors Program participants are awarded through the regular degree granting units. Inquiries about the program should be addressed to the director of honors opportunities.

### SCHOOL OF TECHNICAL CAREERS INDIVIDUALIZED BACCALAUREATE PROGRAMS

The University provides an opportunity to continue educational pursuits toward a baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers Bachelor of Science degrees in technical careers programs for such students. An individually designed program can be developed to meet the individual needs of the students. Programs do not duplicate baccalaureate programs already offered by other academic units. There are six majors: aviation management, career development, consumer economics and family management, electronics management, fire science management (currently offered off-campus only) and health care management.

The regular University baccalaureate admission and other academic requirements and regulations are followed in the technical careers program.

#### UNIVERSITY STUDIES DEGREE PROGRAM

The University Studies Program provides the student with another option for earning a baccalaureate degree. The program is intended for the student who wants a broad, general education and does not wish to specialize on the undergraduate level. In fact, the program was proposed to serve the many students who express the desire to receive a degree, but whose interests are so varied as to preclude a major in a traditional discipline. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

#### SPECIAL MAJOR

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements. Information on the procedures for establishing a Special Major may be obtained from the coordinator of Special Majors, Undergraduate Academic Services.

#### CAPSTONE PROGRAM

The Capstone Program is a program for the transfer student, with an Associate in Applied Science degree or equivalent certification, whose needs can be met within one of the participating departments. It is a two-year program that gives maximum credit for previous academic and work experiences in the student's occupational field. The purpose of a Capstone Program is to provide an opportunity for students to add to the marketable occupational skills and competencies which they have already acquired.

Key features of the Capstone Program are: (1) It is for selected occupational students who have changed their educational and occupational goals; (2) It is an alternative baccalaureate degree program involving no more than two additional years of college at a four year institution; (3) It seeks to recognize similar objectives in both two year occupational programs and four year baccalaureate degree programs; (4) It seeks to recognize similar objectives in certain work experiences and in four year baccalaureate degree programs; and (5) It provides a unique opportunity for developing secondary and post secondary occupational teachers who possess strong work experience and training in a variety of technical specialties and sub-specialties.

The Capstone Program at Southern Illinois University at Carbondale can lead to the Bachelor of Science degree in any of the following areas:

School of Agriculture  
Agribusiness Economics  
Agricultural Education  
Agricultural Education and  
Mechanization  
Agriculture, General  
Animal Industries  
Food and Nutrition  
Plant and Soil Science

College of Education  
Business Education  
Clothing & Textiles  
Early Childhood  
Home Economics Education  
Occupational Education

College of Human Resources  
Administration of Justice

College of Engineering and Technology  
Industrial Technology

College of Liberal Arts  
Paralegal Studies for Legal Assistants

School of Technical Careers  
Aviation Management  
Fire Science Management (off-campus only)  
Health Care Management

Electronics Management  
Career Development  
Consumer Economics and  
Family Management

#### Requirements for the Bachelor of Science Degree Through Capstone

A student completing the degree through the Capstone Program must complete the hour requirements, residence requirements, and average requirements that are required for all bachelor's degrees. The specific course requirements for the Capstone Program are explained below.

The following General Education requirements must be satisfied:

Science	6 semester hours
Social Science	6 semester hours
Humanities	6 semester hours
Health and Physical Education	3 semester hours
English Composition	one course
Mathematics	one course
Speech	one course
Minimum Total	30 semester hours



In addition to the General Studies requirements, the student must complete the requirements specified in a contract to be developed between the student and the academic unit or department representative. The contract will list the remaining requirements for the baccalaureate degree.

#### Procedures for Applying to the Capstone Program

To be considered for the Capstone Program, the following basic conditions must be met:

1. Admission to the University and to the department offering the capstone option must be completed. An application to the Capstone Program cannot be considered prior to official admission into the University.
2. The applicant must complete an associate degree program or its equivalent certification.
3. The applicant must have a minimum grade point average of 2.25 (4.0 grading scale) as computed by Southern Illinois University at Carbondale and according to regular University grading policies and procedures.
4. The applicant must file the application for the Capstone Program no earlier than one term prior to the intended entry into the program and no later than the completion of the first term of attendance at Southern Illinois University. Southern Illinois University students need to submit the application during the term preceding or just following completion of associate degree requirements.

If advance approval is granted to pursue a Bachelor of Science degree through the Capstone Program and the minimum requirements noted above are not met, the approval for admission to the program will be withdrawn.

Additional information concerning Capstone admission requirements, application and procedures, can be obtained from New Student Admission Services. Contact: Capstone Program, New Student Admission Services, Southern Illinois University, Carbondale, IL 62901. Telephone: (618) 536-4405 or toll free in Illinois (800) 642-3531.

#### INTERNSHIPS IN WASHINGTON

Eligible students from Southern Illinois University can combine a work and learning experience for credit through the Washington Center for Learning Alternatives. Participants can intern in congressional offices, executive agencies, and with groups in many other areas such as the environment, consumer affairs, journalism, communications, legal affairs, labor relations, health policy, arts, education, science, public relations, urban affairs, and women's issues. Students also attend seminars taught by representatives of major governmental agencies, interest groups, and corporations.

Prior arrangements are made through major departments to receive up to twelve semester hours for fall or spring semesters and up to six semester hours for a summer session.

The Washington Center for Learning Alternatives at Southern Illinois University at Carbondale is coordinated through Undergraduate Academic Services.

#### OPPORTUNITIES FOR STUDY ABROAD

Southern Illinois University sponsors a number of group programs abroad including the following:

Year Abroad in Australia: Two semesters are offered in Vienna at the Padagogische and other institutions. All courses are taught in German and require the student to have completed five semesters of college level German or equivalent with a 3.0 grade point average. Students may earn 30 to 34 semester hours of undergraduate credit in German language, literature, and civilization and in certain other areas with prior approval. Additional information may be obtained from the Department of Foreign Languages and Literatures.

Semester Abroad in London: SIU is one of the institutions sponsoring one or two semesters at the London Study Center. The program provides an opportunity for students to enroll in a variety of lower and upper division courses taught by faculty from the cooperating institutions. Course offerings change each semester. Additional information may be obtained at the Office of International Education.

International Student Exchange Program: This exchange program is multilateral and involves one-year placement at 63 study sites worldwide. It is a one-for-one exchange plan under which students pay their normal tuition and fees including room and board, and apply credit earned toward their degree. There are study sites in Africa, Asia, Australia, the British Isles, Canada, Europe, and Latin America. Applicants must be mature, have a minimum grade point average of 3.25, and possess the appropriate foreign language skills. Acceptance into the program is considered an honor bestowed in lieu of a scholarship. Most forms of financial aid can be used for this program. Additional information may be obtained at the Office of International Education.

Travel/Study Program: Travel/study courses are offered during intersessions as well as during the summer months. Students must register four to six months prior to the start of the course and may earn graduate or undergraduate credit depending upon the nature of the course. Approximately ten offerings are available during each academic year ranging in length from one week to one year. Courses are taught by full time faculty of SIU and most do not require a



specialized foreign language background. Additional information may be obtained at the Office of International Education.

SIU sponsors a number of exchange programs with institutions of higher education in other countries. These include the following:

Australia: Cumberland College of Health Sciences, Lidcombe, New South Wales (Rehabilitation Institute).

Brazil: Fundacao Educacional de Bauru, Bauru, San Paulo (Rehabilitation Institute).

China: Liaoning University, Shenyant, Liaoning; Northeast Normal University, Changchun, Jilin; Sichuan University, Chengdu. Sichuan.

Eastern Europe: Eastern European Universities Exchange Program (Department of Chemistry and Biochemistry).

France: Inter-University Center for Film and Critical Studies, Paris, France, (Cinema and Photography); University of Caen, Caen, France (Department of Foreign Languages and Literatures).

Germany: University of Hamburg, Hamburg, West Germany, (Department of Foreign Languages and Literatures); University of Mainz, Mainz, West Germany (Department of Foreign Languages and Literatures).

Greece: Agricultural College of Athens, Athens, Greece (Cooperative Fisheries Management Research).

Japan: Kansai University for Foreign Studies, Hirakata, Japan (Department of Foreign Languages and Literatures).

Nepal: Tribhuvan University, Kathmandu, Nepal (Department of Higher Education).

Switzerland: Dolmetscherschule, Zurich Interpreters School, Zurich, Switzerland (Department of Foreign Languages and Literatures).

Virgin Islands: College of the Virgin Islands, St. Thomas, Virgin Islands (Department of Botany).

West Bank: An-Najah National University, Nablus, West Bank via Israel.

Information concerning eligibility, requirements, program offerings, and application deadlines may be obtained from International Programs and Services.

SIU provides the opportunity for a student to arrange travel and study abroad on an independent basis. Credit may be earned through a) a department's independent study courses such as readings, individual research, practicum or related types of courses with prior departmental approval or b) a department or college's travel/study course where offered. Additional information is available from the travel/study coordinator, International Programs and Services.

SIU also grants credit for programs not sponsored by the University. A study may enroll in a travel/study program conducted by a regionally accredited United States institution and transfer the credit to this University. Credits earned in this manner will be evaluated as electives unless a department, program or the Office of Admissions and Records approved the courses in advance to apply toward specific requirements. Additional information may be obtained from International Programs and Services.

A student may enroll in either a foreign language or an independent location of a foreign institution. It is important that the student check with the Office of Admissions and Records before registering since many foreign institutions are not accredited. Graduate students should check with the Graduate School. Credits earned in this manner will count as electives only unless a department or program approves them to apply toward specific requirements.

## SCHOLASTIC STANDARDS

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, the scholastic standing and grade point average for that semester or session, and for the overall record at SIU. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point average, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before they can be removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.0 'C' average is required for the work taken at this University.

In computing students' grade point averages all grades of A, B, C, D, E and F are included in determining the number of calculated hours. Each hour of these grades (1 hour of A is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter, all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through the 1971 spring quarter, the policy contained in the 1970-71 Undergraduate Catalog is followed.

Students who wish to transfer from one SIU unit to another, who have less than a 'C' (2.0) grade point average, will be admitted to the new academic unit only if approved by the dean of that unit.

### SCHOLASTIC PROBATION AND SUSPENSION SYSTEM

Students are expected to make satisfactory progress toward a degree, certificate, or other approved objective. To ensure that students are making progress, their records are checked against the regulations below.

#### SCHOLASTIC PROBATION

When a student's cumulative semester average and the cumulative Southern Illinois University average fall below a 'C' average (2.0), the student will be placed on scholastic probation. A student on scholastic probation may continue enrollment at Southern Illinois University at Carbondale provided the student does not accumulate six negative points. The student with more than six negative points will not be suspended so long as the term average is 'C' (2.0) or above. A student will remain in the category of scholastic probation until the cumulative Southern Illinois University average is 'C' (2.0) or higher.

While on scholastic probation students may not enroll for more than 14 hours per semester unless approved to do so by the dean of their academic unit. Other limitations may be established by the academic unit within which the students are enrolled.

#### CONDITIONAL STATUS

Students admitted on condition are on scholastic probation for the term admitted. In addition, they must enroll for a minimum of twelve semester hours and complete ten semester hours of graded work (A,B,C,D,F). Students admitted on condition who meet the hour requirements will be placed in good standing when they earn a 'C' (2.0) average or higher. They will remain on scholastic probation if they earn less than a 'C' average but six or fewer negative points. Students who earn more than six negative points will be scholastically suspended.

#### TRANSFER STUDENTS ADMITTED ON PROBATION

Transfer students admitted on scholastic probation will remain in that status until they have a minimum of 12 semester hours of credit with at least a 'C' average at Southern Illinois University. If they earn below a 'C' for any session while on scholastic probation, they will be placed on scholastic suspension.

#### SCHOLASTIC SUSPENSION

Students will be scholastically suspended from Southern Illinois University if they fail to meet the requirements of their conditional or probational status. Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken. Some academic units have scholastic requirements in addition to the overall University requirements listed here. Students must learn and comply with the University requirements as well as those requirements applying to the individual schools and colleges.

## BASIC GRADUATION REQUIREMENTS

All students are expected to complete the following basic requirements for the bachelor's degree from Southern Illinois University.

1. A minimum of 120 semester hours of credit in approved courses.
2. The last 30 semester hours must be earned in residence at SIU if a student has transferred from another school.
3. An overall 'C' average and at least a 'C' average in the major. The average requirements apply to work taken at Southern Illinois University. The University does not carry the transfer grade point average.
4. Completion of general studies requirements, upper division unit requirements, and the requirements of the student's major and minor concentration.

The following two special regulations apply to students who transfer from two-year institutions:

1. The credit accepted from accredited two-year institutions is limited only by the provision that 60 semester hours must be taken at Southern Illinois University or at any other approved four-year institution, except that the residence requirement must be met. Credit for work experience, CLEP, military credit, and proficiency examination credit awarded by an accredited senior level institution are counted toward the 60 hour requirement.
2. An associate degree in a baccalaureate-oriented program from an accredited institution will be accepted as meeting all of the General Education requirements of Southern Illinois University. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Education courses.

### UNIT OF CREDIT

Southern Illinois University converted from the quarter system to a semester calendar effective fall 1974. All references to hours of credit in this publication are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

### CLASS STANDING

Southern Illinois University requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

### ACADEMIC LOAD

The normal academic load for undergraduate students is 15-16 hours. The maximum is 18 hours, 21 with a Dean's approval.

The University considers 12 hours as the minimum number to constitute full-time attendance for undergraduate students. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further information on Public Law 358 is available at the Student Work and Financial Assistance Office.

Students on scholastic probation may not take more than 14 hours without approval of the head of their academic unit. Students employed full-time may not register for more than eight hours.



## GENERAL EDUCATION FOR THE TRANSFER STUDENT

A transfer student with an associate degree in a baccalaureate oriented program from an accredited Illinois two-year institution will be accepted as meeting all of the General Education requirements of Southern Illinois University. Associate degrees earned at other than Illinois two year institutions will be reviewed by the Office of Admissions and Records. If the degree is determined to be baccalaureate oriented, the same benefits will be extended to those graduates. The degree will not, however, waive specific academic unit or major and minor requirements which may be offered via General Education courses. A transfer student without this degree who expects to graduate from Southern Illinois University must meet the General Education requirements. These requirements need not be completed prior to transfer but must be fulfilled to meet the general graduation requirements.

NEW General Education Requirements -- For students who began college Fall 1985 or later.

AREA A: Our Physical Environment and Biological Inheritance 9

Core: Select one 3-hour course from each of the following two groupings:

1. GE-A 101 or GE-A 106 or GE-A 110

2. GE-A 115 or GE-A 117 or GE-A 118

Elective: One additional course selected from any other courses offered in GE-A.

AREA B: Our Social Inheritance and Social Responsibilities 9

Core: Select one 3-hour course from two of the following three groupings:

1. GE-B 103 or GE-B 104 or GE-B 105

2. GE-B 211 or GE-B 212

3. GE-B 108 or GE-B 202

Elective: One additional course selected from any other courses offered in GE-B.

AREA C: Our Insights and Appreciations 9

Core: Select one 3-hour course from two of the following three groupings:

1. GE-C 100 or GE-C 101

2. GE-C 102 or GE-C 208

3. GE-C 122 or GE-C 330

Elective: One additional course selected from any other courses offered in GE-C.

Additional coursework from Areas A, B, or C 3

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each area, they must complete a minimum of 9 semester hours with the required distributions. The remaining three semester hours may be selected from any coursework offered in Areas A, B, or C or from the approved substitution list which has not already been counted for General Education.

AREA D: Organization and Communication of Ideas 11

Composition: GE-D 101 and GE-D 117, GE-D 118, or GE-D 119 5  
 GE-D 120, if completed with a grade of C or better, will also complete the composition requirement. GE-D 101 must be completed with a grade of C.

Speech: GE-D 152 or GE-D 153 3

Mathematics: GE-D 107 3

Mathematics 114 will also complete the mathematics requirement.

AREA E: Human Health and Well Being 4

GE-E 107 or GE-E 201 or GE-D 236 2

Two hours selected from physical education activity courses offered in GE-E 2

TOTAL 45

Some programs and upper division academic units require specific General Education courses, particularly in English composition.

OLD General Education Requirements -- For students who began college anywhere prior to Fall 1985.

The General Education Curriculum for the baccalaureate degree is divided into five major areas; the requirements in each area are listed below.

AREA A Our Physical Environment and Biological Inheritance 9

AREA B Our Social Inheritance and Social Responsibilities 9

AREA C Our Insights and Appreciations 9

Additional coursework from Areas A, B, and/or C 3

AREA D Organization and Communication of Ideas 11

AREA E Human Health and Well Being 4

TOTAL 45

Students must complete a total of 30 semester hours in Areas A, B, and C. Within each area, they must complete a minimum of 9 semester hours, and they must include coursework from at least 3 different disciplines in each Area. The remaining 3 semester hours may include coursework from any one of Areas A, B, or C, or from any combination of these three Areas.

Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division academic units have specific requirements for demonstration of competence in English composition. A student may determine which programs or units have this requirement by referring to college and school requirements listed in Chapter 4 of the University Catalog.

In Area E, the courses taken must include more than one activity or subject. Prospective teachers should also check the section in the University Catalog titled Professional Education Experiences to determine if Health Education coursework should be included in their four hours of Area E requirements.

#### Area A: Our Physical Environment and Biological Inheritance (GE-A)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of science. A minimum of three different disciplines must be represented within this 9 hour block.

Courses which regularly count within this area are chemistry, physics, earth science, geology, botany, zoology, biological sciences, physical sciences, physical geography, a basic course in physiology, a basic course in astronomy, a general course in microbiology. (Technical physics may also be counted in this area).

##### Course-Hours

101	3	Conceptual Insights into Modern Communications Systems: From Hi-Fi Sound to Laser Beams
106	3	Chemistry for Non-Science Majors
110	3	Earth Science
115	3	Biology
117	3	Botany: Plants and Society
118	4	Introductory Zoology
202	3	Space Science - Astronomy
221	3	Survival of Man
230	3	Energy and the Future
240	3	Ecology
312	3	Conservation of Natural Resources
330	3	Weather

#### Area B: Our Social Inheritance and Social Responsibilities (GE-B)

Area Requirements. In the area of social studies a transfer student needs no less than 9 semester hours of acceptable work within a minimum of three different disciplines represented.

Courses which regularly count within this area are introductory courses in sociology, psychology, economics, government, political science, global or economic geography, anthropology, American, world, or European history.

##### Course-Hours

102	3	The Western World
103	3	Geography of the Human Environment
104	3	The Human Experience: Anthropology
105	3	The Contemporary World
108	3	The Sociological Perspective
112	3	Comparative Economic Systems
202	3	Introduction to Psychology
205	3	Consumer Decision-Making
211	3	Contemporary Economics
212	3	Introduction to American Government and Politics
215	3	Comparative Race and Ethnic Relations
221	3	Survival of Man
250	3	Introduction to Comparative Government and Politics
262	3	Marriage and Family in Contemporary Society
301	3	Modern America from 1877 to the Present

#### Area C: Our Insights and Appreciations (GE-C)

Area Requirements. A transfer student needs a total of no less than 9 semester hours of acceptable college level work in the area of humanities. A minimum of three different disciplines must be represented within this 9 hour block.

Courses which regularly count within this area are in art and music appreciation, art and music history, survey courses in humanities, philosophy, oral interpretation of literature, survey literature courses such as poetry, fiction, modern literature, English and American literature.

NOTE: A student may substitute on an hour-for-hour basis a maximum of 4 semester hours of foreign language counting as one discipline toward the Area C requirement.

#### Course-Hours

100	3	Music Understanding
101	3	Introduction to Art
102	3	Problems in Philosophy
103	3	Introduction to Theater
104	3	Moral Decision
122	3	Appreciation of Literature
200	3	Oral Interpretation of Literature
204	3	Meaning in the Visual Arts
205	3	Innovation for the Contemporary Environment
208	3	Elementary Logic
213	3	East Asian Civilization
215	3	Types of Religion
221	3	Survival of Man
230	3	Classical Civilization
330	3	Classical Mythology
340	3	The Western Cultural Tradition
345	3	Literature and the Modern World

#### Area D: Organization and Communication of Ideas (GE-D)

Area Requirements. A transfer student needs a total of no less than 11 semester hours of acceptable college level work in the area of communications. Within Area D, the following are required: 5 semester hours of English composition; 4 semester hours of mathematics; and 2 semester hours of speech or other oral communication as offered in Area D. Some programs and upper division units have specific requirements for demonstration of competence in English composition. Students should consult the University Catalog to determine Area D requirements of the various schools and colleges at SIU.

#### Course-Hours

101	3	English Composition
107	3	Intermediate Algebra
117	2	Expository Writing
118	2	Technical Report Writing
119	2	Creative Writing
120	3	Freshman Honors Composition
152	3	Interpersonal Communication
153	3	Public Speaking

#### Area E: Human Health and Well-Being (GE-E)

Area Requirements. A transfer student needs a total of no less than 4 semester hours of acceptable college level work in Health and/or Physical Education. The courses taken must include more than one activity or subject. Prospective teachers should consult College of Education requirements to determine if Health Education coursework must be included in the four hour Area E requirement.

#### Course-Hours

100	1 to 4	Restricted Physical Education
*101	1 to 14	Aquatics
*102	1 to 10	Physical Fitness
*103	1 to 16	Dance
*104	1 to 34	Individual and Dual Activities
*105	1 to 12	Team Activities
*106	1 to 6	Martial Arts
107	2	Life, Leisure and Recreation
*114	1 to 4	Intermediate Individual and Dual Activities
201	2	Healthful Living
236	2	Nutritional Ecology

\*Consult SIU Undergraduate Catalog to determine various activities.

Special Note: Veterans may qualify for Area E credit for their military experience. See section on Evaluation of Credit.

#### Miscellaneous

The preceding General Education requirements are not applicable to community college transfer students who have received an associate degree within a baccalaureate oriented program. This degree will automatically satisfy all General Education requirements, but will not necessarily satisfy departmental prerequisite lower division courses required of the student's major area.

Students may satisfy some General Education requirements by making certain approved substitutions of departmental courses for specified General Education courses.



Any student who feels qualified to take a proficiency examination is eligible to apply. Credit is given to students passing proficiency exams. Credit by proficiency cannot exceed 30 semester hours. Application for proficiency exam should be initiated at the appropriate department.

Proficiency credit granted by other regionally accredited institutions will be recognized. Special regulations apply to proficiency credit earned through the College Level Examination Program (CLEP). See section on Evaluation of Transferred Credit.

#### APPROVED SUBSTITUTES

The departmental courses which have been approved as substitutions for General Education courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Education course.

General Education Course	Approved Substitutes
GE-A 101-3	One of: Physics 203, 205 or 3 semester hours of technical physics.
GE-A 106-3	One of: Chemistry 115, 140, 222, or 4 semester hours of technical chemistry
GE-A 110-3	Geology 220
GE-A 115-3	One of: Biology 306, 308, 309
GE-A 117-3	Botany 200
GE-A 202-3	Physics 203b or 205b
GE-A 240-3	Biology 307
GE-A 330-3	Military Credit for Meteorology
GE-A unassigned-3,6,9	Three, six or nine semester hours from University Honors 251a and/or 351a
GE-B 103-3	Geography 300
GE-B 211-3	One of: Agribusiness Economics 204; Economics 214, 215
GE-B unassigned-3,6,9	Three, six or nine semester hours from University Honors 251b and/or 351b
GE-C 100-3	Music 101 or three hours of 102, 013, 014, 017, 020, 021, or 022
GE-C 101-3	Art 100
GE-C 204-3	Art 207
GE-C Elective Area	A student with a full year (or its equivalent) of study in a single foreign language may substitute up to (4) hours in General Education Area (C).
GE-C unassigned-3,6,9	Three, six or nine semester hours from University Honors 251c and/or 351c
GE-A/B/C unassigned-3	Three hours for University Honors 251a/b/c or 351a/b/c
GE-D 101-3	Linguistics 101
GE-D 107-3	One of: Mathematics 108, 109, 111, 114, 116, 117, 139, 140, 150, 151, 159, 250, 259, or 4 semester hours of technical mathematics at the level of intermediate algebra
GE-D 117-2	Linguistics 102
GE-D 118-2	One of: Management 202, Linguistics 103, or 2 semester hours of technical writing
GE-E 101-114-1 to 2	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GE-E unassigned-1 to 2	One to two semester hours from University Honors 251e and/or 351e
GE-E 201-2	Health Education 350
GE-E activity unassigned-1 to 2	ROTC Field Training

A maximum of 15 semester hours of comparable technical coursework can be substituted for General Education requirements.

## EVALUATION OF TRANSFER CREDIT

Transfer credit for students admitted to the University is evaluated for acceptance toward University and General Education requirements by the Office of Admissions and Records after the admission decision has been made. All credit from a regionally accredited institution, and those in candidacy status, or from an institution that has its credit accepted by the reporting institution in the state including that which is vocational, occupational, technical or terminal is accepted at the time of admission. Courses which are remedial or developmental will not be accepted for transfer. The Office of Admissions and Records will determine the acceptance of credit and its applicability toward completion of University and General Education requirements of any transfer work which is used in the admission decision. Although transfer credit from both baccalaureate and non-baccalaureate programs may be considered in the admission process, the acceptance of such credit toward specific program requirements will be made by the department or agency directing the program.

All credit which is accepted and which is not applied to General Education requirements or to a specific program will be considered elective credit. The decision will be made depending upon the program the student has completed and the program entered at Southern Illinois University. A student should not expect to receive credit if the transfer work was taken at a school which is not regionally accredited and whose credit is not accepted by the reporting institution in the state.

Completion of an associate degree in a baccalaureate oriented program in an accredited Illinois two-year institution provides that the student will: (a) be accepted with junior standing and (b) be considered to have completed the General Education requirements. Associate degrees earned at other than Illinois two-year institutions will be reviewed by the Office of Admissions and Records. If the degree is determined to be baccalaureate-oriented, the same benefits will be extended to those graduates. Credit from an accredited two-year institution is limited only by the provision that students must earn at least 60 semester hours of work at Southern Illinois University or at any other approved four-year institution and must complete the residence requirements for a degree from the University.

### Transcripts and Test Scores

Transfer students who have taken college level work at other institutions must have official transcripts of all work forwarded to the Admissions Office. An official transcript from each college or university attended must be submitted. Failure to comply with this ruling, failure to indicate all institutions attended, or incorrect information regarding status at the other institutions can result in withdrawal of admission or dismissal for the student.

Transfer students who might qualify for advance standing must have both their ACT profile and their high school transcripts available in the Undergraduate Academic Services office. It is the student's responsibility to see that these items are submitted. If credit for a General CLEP exam (except English) appears in another college's transcript, credit will be evaluated at SIU. For the General English CLEP credit to be evaluated, transfer students must submit official scores of the General Examination of the College Level Examination Program (CLEP). Also, credit possibilities based upon formal service-school training programs, USAFI courses, and military experience will be evaluated upon submitting required papers.

Transfer students may be admitted and their work tentatively evaluated on the basis of a partial or incomplete transcript. If the final and complete transcript is not submitted, the student will not be allowed to register for a second semester of attendance. It should be noted that it is the student's responsibility to request transcripts be sent to the Admissions Office.

NOTE: If the evaluation appears to be in error, the student and/or his or her advisor should contact the Office of Admissions and Records.

### Status of Institution

The annual publications entitled Transfer Credit and Practices of Selected Educational Institutions published by the AACRAO and Accredited Institutions of Higher Education published by ACE are used for guidance relative to the status of institutions for credit acceptance purposes.

### Non-Regionally Accredited

For students who transfer from non-baccalaureate programs in non-regionally accredited institutions, special regulations also apply.

Occupational work taken from a non-regionally accredited institution presented by a student with an associate degree or equivalent and with a 'C' average will be evaluated as stated previously.

There is no provision for the granting of credit, except via proficiency examinations or by individual review by the academic unit the student enters, for students coming from a non-regionally accredited institution without the associate degree or equivalent or with less than a 'C' average.

All accepted occupational and technical credit will be examined by the department of the student's intended major to determine its applicability toward meeting degree requirements.

### Foreign Schools

All work completed at foreign schools must be evaluated through the Admissions Office. Work is evaluated course by course. Courses must be considered equivalent in content to courses at SIU before credit can be granted. Non-equivalent credit will be evaluated by the department under question to determine its acceptability. Students who are transferring work from universities outside the U.S.A. are advised to bring with them official and detailed descriptions of those courses.

Undergraduate applicants must submit official transcripts of records from all secondary or middle schools and all universities, colleges, or professional schools attended. Secondary school records are not required from those who have earned a bachelor's degree or the equivalent thereof and are applying to the graduate school. Records must list subjects taken each year, along with the grades or marks received. Each transcript must include a complete list of all courses taken at that institution, the number of weeks and the number of hours per week in lecture and laboratory for each subject, and the grade received. There should be included a description of the grading system of each institution attended and, if possible, a statement of the student's scholastic rank in his or her graduating class.

### Extension, Correspondence, Pass/Fail, Advance Standing, Proficiency

Work taken by extension or correspondence at regionally accredited institutions is accepted unconditionally toward the baccalaureate degree. No more than 30 hours may be in correspondence work. Correspondence work must carry a 'C' or better.

### 'D' Work

Hours of 'D' will be accepted under the same conditions as all other credits except for correspondence work as above.

### Military Experience

Credit for military experience may be granted as follows:

Service of one year or more of active duty and honorable discharge allows six semester hours including two in physical education, two in health education, and two in aerospace studies.

Service of six months to a year may result in two hours in freshman aerospace studies only.

Service of less than six months allows no college credit.

Credit will be accepted for DANTES Subject Standard Tests within the limitations enforced for extension and correspondence work. No credit is allowed for college-level GED tests. In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, Guide to the Evaluation of Educational Experiences in the Armed Forces, are followed. In order to receive credit for military service, veterans must present a copy of discharge or separation papers to the Office of Admissions and Records.

### Preparatory or Developmental Courses

Grades and credit for preparatory or developmental courses will not be used for evaluation purposes.

### Repeating Courses and the G.P.A.

For both admission and evaluation purposes grades earned in repeated course work will be averaged.

The University does not include an entering transfer's grade point average together with the SIU GPA; rather, a transfer's GPA is based solely on work taken at this University.



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## PRE-PROFESSIONAL PROGRAMS

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A program of study called "pre-professional" does not lead to a degree at SIU. Pre-professional students who will be on campus longer than two years should enroll as double majors and enter the college which grants a degree in the second major. Students without an additional major will be enrolled in the College of Liberal Arts (pre-law and pre-theology majors), Undergraduate Academic Services (pre-nursing majors), or College of Science (other health career majors). Pre-professional programs are available in the following areas:

Dentistry (3 or 4 years)	Pharmacy (1 or 2 years)
Law (3 or 4 years)	Physical Therapy (2 or 3 years)
Medicine (including Osteopathic) (4 years)	Podiatry (3 to 4 years)*
Nursing (3 or 4 semesters)	Theology (2 to 4 years)*
Optometry (3 to 4 years)	Veterinary Medicine (3 or 4 years)

In addition to these pre-professional programs, the University offers professional curricula in engineering and law (Carbondale), medicine (Carbondale and Springfield), and dentistry and nursing (Edwardsville).

Pre-professional students may, subject to certain conditions, obtain a bachelor's degree after three years of work (90 semester hours) at SIU plus one or more years of work in a professional school. During the three years at SIU, the students must complete all requirements (other than elective hours) for the particular bachelor's degrees they are seeking.

In some cases, students may complete requirements for a major at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, there needs to be completion of at least one year of professional work with acceptable grades in an accredited dental, law, medical, osteopathic medical, or veterinary school.

In all cases, SIU graduation requirements must be met. Students must make the decision to seek a bachelor's degree before entering the professional school so that questions can be clarified early.

Students should be aware that the Testing Office schedules aptitude and/or admission tests for some professions; pre-registration is necessary for these tests.

\*Recommended program not listed.

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## UNDERGRADUATE ACADEMIC SERVICES

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Generally concerned with the freshman and sophomore years, Undergraduate Academic Services offers academic support programs designed to enhance opportunities for success for all its students.

### General Education

The general education requirements are satisfied through the General Education program.

The student is required to have a total of 45 hours in the five areas of General Education. There is considerable flexibility in the program and the transfer student should have little difficulty in meeting the General Education requirements.

A student who graduates with an associate degree in a baccalaureate-oriented program from a Class I Illinois two-year institution, or one regionally accredited, is considered to have met the General Education requirements.

### Pre-Major Advisement Center

Pre-Major Advisement is the academic home for all students who wish to explore one, two, or several major fields before choosing their career goals. The Pre-Major Advisement Center provides each student with an experienced academic advisor who knows the requirements for all major programs and who will offer assistance in selecting an appropriate course of study.

### Special Major

A student whose academic needs are not met by existing baccalaureate programs may arrange a special undergraduate degree program in lieu of a standard curriculum. For guidelines inquire at the office of the Special Major coordinator, Undergraduate Academic Services.

### University Studies Program

The University Studies Degree Program exists for those students who wish to take a broader approach to their education by not specializing. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies Degree Program may pick up the guidelines in the University Studies Office. After ascertaining eligibility for the program the student should then consult with the University Studies advisor.

### Center for Basic Skills

The Center for Basic Skills offers special academic assistance through a non-credit learning skills class and laboratory, academic monitoring and counseling, small group and individual tutorials. Although participation for some students may be required, any student is welcome to take advantage of this special service at no cost. Students should direct inquiries to the director of Undergraduate Academic Services.

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## SCHOOL OF AGRICULTURE

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You want to be a part of an exciting, dynamic, fast-growing, high-technology industry, but you are not sure where you might fit in American Agriculture? Be assured this diverse, complex, science-based industry has room for you, and it needs your abilities.

For more than a century, America has been moving agricultural jobs from the farms to the cities, the suburbs and rural communities. As a result, the opportunities in agriculture are probably broader than in any other area of employment. No matter what your interests or the type of career you hope to follow, you can find your place in agriculture. Persons trained in agriculture are needed and they can serve humankind as they satisfy themselves. The spectrum of career opportunities for agriculture graduates ranges from the rural producer, through the many processing and distributing occupations, to those who provide services to the agricultural food and natural resource industries.

The curricula of the five departments of the School of Agriculture which are presented on the following pages provide opportunities for students with wide-ranging interests and abilities in the physical, biological, and social sciences. In Agriculture, you learn to apply these basic sciences in helping to solve food, fiber, environmental and ecological problems--whether these problems are found in the local community, state or nation, or in an international or global context.

### MAJORS OFFERED:

Agribusiness Economics	Animal Industries
Agricultural Education	Food and Nutrition
Agricultural Education & Mechanization	Forestry
Agriculture General	Plant and Soil Science

**FACILITIES:** The offices, classrooms and laboratories for all programs in the School of Agriculture except food and nutrition are in the Agriculture Building. Those for food and nutrition are in Quigley Hall. Additional SIU-owned facilities devoted to teaching and research in the School of Agriculture include nearly 2,000 acres of farm and timber land, 15,575 square feet of greenhouse space, and special centers devoted to each of six species of livestock.

**ACCREDITATION:** North Central Association of Colleges and Secondary Schools.  
American Dietetics Association (for Food & Nutrition)  
Society of American Foresters (for Forestry)  
National Council for Accreditation of Teacher Education  
(for Agricultural Education)  
National Association of State Universities and Land-Grant Colleges

**UNDERGRADUATE DEGREE OFFERED:** Bachelor of Science.

**GRADUATE PROGRAMS:** The School of Agriculture has programs leading toward the Master of Science degree and a joint program with the Botany Department leading to the Ph.D. degree. Many of the programs are mentioned in this section, but there are additional options, available only at the graduate level. For more information consult with School of Agriculture, the Graduate School, or the Graduate Catalog.

**ORGANIZATIONS:** Scholastic and Professional Honoraries: Alpha Zeta (agriculture), Pi Alpha Xi (floriculture and ornamental horticulture), and Xi Sigma Pi (forestry). Special Interests: Alpha Gamma Rho Chapter. Departmental: Agricultural Mechanization Club; Agriculture Economics Club; Agribusiness Economics Graduate Student Club; Agricultural Communicators of Tomorrow; Agriculture Student Advisory Council; Block and Bridle Club; Forestry Club; National Agri-Marketing Association Club; Plant and Soil Science Club; Society of American Foresters Student Club; Dairy, Horticulture, Livestock, Poultry, and Soil Judging Teams; and Collegiate FFA.

**TRANSFER STUDENTS:** If agriculture is offered for transfer credit at a regionally accredited associate degree granting college, introductory courses in the various fields may be accepted at SIU in lieu of equivalent courses. For transfer students wishing to pursue a concentration in one of the agricultural, food or forestry areas, courses prior to entering SIU should include physical and biological sciences, social sciences, and humanities. In addition, a course in speech and appropriate sequences in English composition and college algebra should be included. All majors within the School of Agriculture must have work in: mathematics; botany or zoology or biology; chemistry; economics; and speech.

Persons who have an Associate in Applied Science degree in an occupationally oriented program should inquire into the possibilities of entering the School of Agriculture under the Capstone Program, which is explained in another section of this handbook.

### FOR FURTHER INFORMATION:

Assoc. Dean for Instruction	New Student Admission Services
School of Agriculture	Phone (618) 536-4405 (direct)
Phone (618) 453-2469	Phone (800) 642-3531 (toll free)



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## COLLEGE OF BUSINESS AND ADMINISTRATION

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The College of Business and Administration, located in Henry J. Rehn Hall, aims to prepare students to perform successfully in business and other organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum, computer experience, and internship programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

**ACCREDITATION:** American Assembly of Collegiate Schools of Business (AACSB), and North Central Association of Colleges and Secondary Schools.

**DEGREES OFFERED:** Bachelor of Science.

Accounting	Management
Business and Administration	Entrepreneurship
Business Economics	Management
Finance	Decision Sciences
Financial Management	Marketing
Financial Institutions	

**GRADUATE PROGRAM:** The College of Business and Administration offers the Master of Business Administration (M.B.A.), Master of Accountancy (M.Acc.), and Doctor of Business Administration (D.B.A.) degrees.

**ORGANIZATIONS:** Scholastic and Professional Honoraries: Alpha Kappa Psi (Business), Beta Alpha Psi (Accounting), Beta Gamma Sigma (Business), Phi Gamma Nu (Business), Pi Sigma Epsilon (Marketing), and the Society for Advancement of Management (SAM) and American Marketing Association (AMA). Departmental: Concerned Professional Accountants, American Marketing Association, College of Business and Administration Student Council, Financial Management Society.

**RETENTION POLICY:** In order to continue enrollment in a major offered by the College of Business and Administration, students must maintain a 2.2 Southern Illinois University cumulative grade point average. Students must also complete the following nine courses with an overall C average, before attaining junior status (56 semester hours). It is also necessary for students to have completed with a grade of C or better seven of these nine courses. The nine retention courses or the equivalencies are GE-D 101; GE-B 202; Mathematics 116 and 117 or 139 and 140; Economics 214; Accounting 220 and 230; Management 208; and Computer Science 212 or Electronic Data Processing 217. Students who have completed 42 semester hours or more without completing at least six of the prescribed nine courses will be subject to termination from the college.

**TRANSFER STUDENTS:** The College of Business and Administration will accept college level credit earned in business and economics courses from any accredited two- or four-year institution toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where taken, only courses shown below will be accepted as substitutions for college required courses.<sup>1</sup>

Courses	Semester Hours
Principles of accounting	6.0
Cost accounting	3.0
Economic principles	6.0
Business/economic statistics	3.0
(where college algebra is a prerequisite)	
Basic computer course <sup>2</sup>	3.0

Additionally, three semester hours of introduction to business and three semester hours of business law (contract and agencies) completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required.

Students also have the opportunity of validating additional coursework and nothing in the above statement abridges a student's right to satisfy graduation requirements by proficiency (or competency) examinations. Such examinations are treated as a student right by the college and are available for most courses.

<sup>1</sup>At least 40% of the coursework of all business majors, but not more than 60%, must be in Economics and Business prefix courses. This is called the 40% rule.

<sup>2</sup>Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: FORTRAN, BASIC, COBOL, RPG, PASCAL, PL1, and ALGOL. Courses that survey numerous languages are not acceptable.

Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

ADMISSION POLICY: The following admission policy for the College of Business and Administration took effect Summer, 1986, and applies to all students who enroll at Southern Illinois University after May, 1986.

Freshmen: Beginning freshmen must rank in the top ten percent of their high school graduating class and have an ACT standard composite score of 21 or rank in the top half of their high school graduating class and have an ACT standard composite score of at least 24 to be eligible for immediate admissions to majors offered by the College of Business and Administration. New freshmen who do not meet these requirements but do fulfill regular Southern Illinois University admissions requirements will be admitted to the university with a pre-business major classification.

Transfer Students: Transfer students who have completed fewer than 26 semester hours must meet the admissions requirements of beginning freshmen and must have earned a collegiate grade point average of 3.0 (4.0 scale) to be admitted directly to a major in the College of Business and Administration. Students who have completed more than 26 hours, but fewer than 56 hours must have earned a grade point average of 3.0 to be admitted directly to a major in the College of Business and Administration. Students who have completed 56 hours or more must have earned an overall grade point average of 2.2 and completed all nine of the College of Business and Administrations retention courses with an average of 2.0 in those courses to be admitted to a major in the College of Business and Administration. It is necessary also that seven of the retention courses be completed with a grade of C or better. (See College of Business Retention Policy on previous page.) Transfer students who do not meet these requirements, but do meet regular admission requirements will be admitted to the University with a pre-business classification.

A student's grade point average is determined by calculating all collegiate grades earned including repeated courses.

Southern Illinois University Students: Students who are currently enrolled or were previously enrolled at Southern Illinois University in a major outside the College of Business and Administration may request admission to a business program. They may be admitted to degree programs in business if they meet the requirements for beginning freshmen or transfer students. Students who do not meet new freshmen or transfer requirements may be granted admission with a pre-business classification provided they have an overall 2.0 average at Southern Illinois University.

Pre-Business Classification: Those beginning freshmen and transfer students admitted to the University with a pre-business classification may request admission to a College of Business and Administration degree program when:

1. They have earned an overall average of 2.2;
2. They have completed at least 56 semester hours;
3. They have completed the college of Business and Administration's nine retention courses with an average of 2.0 in those courses. Seven of the courses must be completed with a grade of 'C' or better.

Pre-business students enrolled at Southern Illinois University requesting admission to a degree program must complete an application for admission to the College of Business and Administration major. Students applying for spring must apply by October 1 of the preceding year, for summer by March 1 preceding the summer, and for fall by March 1 preceding the fall.

Because interest in business classes continues to be exceedingly high, it may be necessary to close admission to selected business majors without advance notice.

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## COLLEGE OF COMMUNICATIONS AND FINE ARTS

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The College of Communications and Fine Arts is comprised of eight academic units:

School of Art  
Department of Cinema and Photography  
Department of Communication Disorders and Sciences  
School of Journalism  
School of Music  
Department of Radio-Television  
Department of Speech Communication  
Department of Theater

More complete information about the programs offered in each of these academic units is provided in the next section of this catalog.

Three service units are housed in the College:

The *DAILY EGYPTIAN*, a daily student newspaper with a circulation of 27,000.

The Broadcasting Service, operating *WSIU(FM)*, a public radio station; and *WSIU(TV)*, Carbondale, and *WUSI(TV)*, Olney, public television stations.

The University Museum.

Admission to the University is handled through the Office of Admissions and Records, but those students who desire more specific information about a major should make an appointment with an academic advisor of that department or school. Each department or school of the college has one or more individuals who will advise prospective students about major requirements, curriculum, activities, careers, and opportunities. Transfer students may also discuss transfer credit and placement in courses at Southern Illinois University.

Faculty of the college are engaged in research/creative activities concerning communications and the arts. They also provide consulting service and other communication services to schools, newspapers, radio and television stations, museums, arts centers, businesses, and governments. They hold professional memberships and serve as officers in various local, state, national, and international organizations in the communications media and in the arts. A number of special events are presented each year, including lectures by noted artists, music performances, dramatic presentations, art and photography exhibits, and film showings.

### DEGREES OFFERED:

Bachelor of Fine Arts - Art  
Bachelor of Arts - Art, Cinema and Photography, Design,  
Music, Theater, Radio and Television  
Bachelor of Music  
Bachelor of Science - Communication Disorders and Sciences,  
Journalism, and Speech Communication

**GRADUATE PROGRAMS:** Master of Arts degree in Journalism, Speech Communication and Telecommunications; Master of Science in Communication Disorders and Sciences, Journalism, and Speech Communication; Master of Music degree in Music; Master of Music Education degree in Music; Master of Fine Arts degree in Art and Cinema and Photography; Doctorate of Philosophy degree in Communication Disorders and Sciences, Journalism, and Speech Communication.

For specific information concerning graduate work, a student should consult the department of interest in the College of Communications and Fine Arts and the Graduate School.

### FOR FURTHER INFORMATION:

Chief Academic Advisor  
College of Communications and Fine Arts  
Phone 618-453-4308

New Student Admission Services  
Phone (618) 536-4405 (direct)  
Phone (800) 642-3531 (toll free)

Southern Illinois University  
Carbondale, Illinois 62901



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## COLLEGE OF EDUCATION

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Preparation of teachers of all subjects taught in the public schools from pre-school through high school is the special function of the College of Education. In its graduate offerings, however, it broadens its efforts to include professional work for prospective college teachers and several specializations in school administration and supervision.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University. Today the College is comprised of nine academic departments: Curriculum Instruction and Media; Educational Leadership; Guidance and Educational Psychology; Health Education; Higher Education; Physical Education; Recreation; Special Education; and Vocational Education Studies.

**TEACHER EDUCATION PROGRAM APPROVAL:** Each of the specializations in teacher education noted in this Counselor's Advisement Catalog has continuing approval from the Illinois State Teacher Certification Board.

**ACCREDITATION:** North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education.

**DEGREES OFFERED:** Bachelor of Science.

**GRADUATE PROGRAMS:** Students can continue on the graduate level of the above programs and in some areas not listed. For more specific information a student should consult with the College of Education and the Graduate School, and read the Graduate Catalog.

**ORGANIZATIONS:** Scholastic and Professional Honoraries: Kappa Delta Pi, Phi Delta Kappa, Pi Lambda Theta, Pi Omega Pi, Delta Pi Epsilon, Eta Sigma Gamma, and Alpha Lambda Delta. Departmental: Association of Childhood Education International, Council for Exceptional Children, Recreation Club, Student Education Association, Women's Recreation Association, Phi Beta Lambda, PE Majors Club, Vocational Education Studies Graduate Association, Illinois Vocational Home Economics Teachers Association, and Iota Lambda Sigma.

**TRANSFER STUDENTS:** Students preparing to teach should familiarize themselves with all the specific requirements and prerequisites for teacher certification. Also, admission to the University or to an academic unit does not admit a student to the formal Teacher Education Program (see Transfer Admissions-Eligibility).

One-hundred clock hours of supervised pre-student teaching clinical experiences are required of all Teacher Education candidates. These hours are included in Education 310, 311, 314, 315 and 316, and are primarily planned for the junior and senior professional level of the program. Articulation of courses with Illinois community colleges provides a mechanism for some of the clock hours to be obtained prior to entering SIU, i.e., equivalents of Education 311 and 314. Prospective students are encouraged to check for articulation of these courses prior to enrollment in similar community college courses.

Students are also required to have the equivalent of a three semester hour course on the characteristics of handicapped children and youth, and methodology for teaching the handicapped including the learning disabled. These requirements are also included in EDUC 310, 311, 314, 315 and 316 as well as methods and clinical experiences. For students who attended community colleges which have not articulated this requirement in equivalent courses, SPE 408 may be taken at SIU. Further information on articulation of courses may be obtained from the Coordinator of Teacher Education Services, College of Education, Wham Education Building.

Students wanting to transfer occupational credit into the College of Education should consult a program coordinator in the Department of Vocational Education Studies to determine possible applicability of this credit toward meeting degree requirements.

### FOR FURTHER INFORMATION:

M. Frances Giles  
Coordinator of Teacher Education Services  
College of Education  
Phone 618-453-2354

Southern Illinois University  
Carbondale, Illinois 62901

## SECONDARY EDUCATION

Students who elect to pursue a Bachelor of Science degree in the College of Education, for purposes of preparing to teach in junior or senior high schools, should select academic majors and minors from the areas included in the listing below. Included in the column headed Major are those areas for which Southern Illinois University has approval from the State of Illinois Office of Education and from the State Teacher Certification Board.

<u>Teaching Area</u>	<u>Major</u>	<u>Minor</u> <sup>1</sup>
Agricultural Education	X	
Art <sup>2</sup>	X	
Biological Sciences	X	X
Black American Studies		X
Business Education	X	X
Chemistry	X	X
Earth Science		X
Educational Media		X
English	X	X
Foreign Languages	X	X
Geography	X	X
Health Education <sup>4</sup>	X	
History	X	X
Home Economics Education	X	
Language Arts (English and Reading)	X	
Mathematics	X	X
Microbiology		X
Music <sup>2</sup>	X	X
Occupational Education		
(Health Occupations)	X	
(Trades and Industries)	X	
Philosophy		X
Physical Education	X	X
Physics	X	X
Physiology		X
Political Science	X	X
Psychology		X
Social Studies	X	
Sociology		X
Speech Communication	X	X
Theater		X
Zoology <sup>3</sup>	X	X

<sup>1</sup> All minors used for certification purposes must include a minimum of 18 semester hours.

<sup>2</sup> K-12 certification which includes secondary.

<sup>3</sup> A student with a major in zoology should have a minor in botany in order to meet certification standards for teaching biology at the high school level.

<sup>4</sup> Driver Education is offered for certification purposes in the Department of Health Education.

M. Frances Giles  
 Coordinator of Teacher Education Services  
 Telephone - 618-453-2354  
 Location - Wham Building, Room 135

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## COLLEGE OF ENGINEERING AND TECHNOLOGY

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The curricula in the College of Engineering and Technology are designed to provide instruction and to stimulate research. Attention is given to theories and their applications, and to creative and practical aspects.

ACCREDITATION: North Central Association of Colleges and Secondary Schools; the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET) for the Engineering programs, and the Technology Accreditation Commission of ABET for the Engineering Technology programs; National Association of Industrial Technology for Industrial Technology.

DEGREES OFFERED:

- Bachelor of Science - Engineering
- Bachelor of Science - Civil Engineering
- Bachelor of Science - Electrical Engineering
- Bachelor of Science - Mechanical Engineering
- Bachelor of Science - Mining Engineering
- Bachelor of Science - Engineering Technology
- Bachelor of Science - Industrial Technology

GRADUATE PROGRAMS: Master's degree work is available in a number of specialties in engineering. A Ph.D. program in Engineering Science is also available. For specific information concerning advanced degree work, a student should consult the College of Engineering and Technology, the Graduate School and the Graduate Catalog.

ADMISSION TO ENGINEERING PROGRAMS: Admission requirements for freshmen, transfer, and international students are under "Admission Policies and Requirements."

### RETENTION POLICY IN THE COLLEGE OF ENGINEERING AND TECHNOLOGY

Students in the College of Engineering and Technology are required to maintain a 2.0 grade point average in their major at all times. Students who do not meet this requirement are subject to collegiate warning. Students on collegiate warning who do not meet College retention standards are subject to collegiate dismissal. Admissions standards in the College require pre-engineering students to fulfill specific requirements to remain in good standing. Students who do not meet these requirements will be covered by the Collegiate Warning/Dismissal Policy.

TRANSFER STUDENTS: Students should note that the minimum mathematics requirement for baccalaureate degrees in the College of Engineering and Technology will vary, depending upon the curriculum followed. Prospective transfer students should study the following pages carefully. Students planning to transfer occupational credit toward a degree in industrial technology should consult with the Department of Technology concerning the applicability of such credit toward meeting degree requirements.

Graduates of occupationally-oriented programs should inquire into the possibilities of entering the College of Engineering and Technology in the Industrial Technology major under the Capstone Project. Requirements of this special program are mentioned in another section of this handbook.

FOR FURTHER INFORMATION: contact Dean, College of Engineering and Technology, telephone 618-453-4321.



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## COLLEGE OF HUMAN RESOURCES

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The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

Administration of Justice  
Social Work

No specific unit requirements. Consult degree programs in catalog and handbook for specific degree requirements.

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## COLLEGE OF LIBERAL ARTS

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The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Separate minors are listed and others are possible in most of these areas.

African Studies <sup>1</sup>	English	Paralegal Studies for Legal Assistants
Anthropology	French	Philosophy
Asian Studies <sup>1</sup>	Geography	Political Science
Chinese <sup>1</sup>	German	Psychology
Classical Civilization <sup>1</sup>	Greek <sup>1</sup>	Religious Studies
Classics	History	Russian
Comparative Literature <sup>1</sup>	Japanese <sup>1</sup>	Sociology
Computer Science	Latin <sup>1</sup>	Spanish
Earth Science <sup>1</sup>	Linguistics	Speech Communication <sup>2</sup>
East Asian Civilizations <sup>1</sup>	Mathematics	Uncommon Languages <sup>1</sup>
Economics	Museum Studies <sup>1</sup>	

<sup>1</sup>Minor only.

<sup>2</sup>Liberal Arts major, not professional major.

### College Requirements Effective Fall, 1978

Students beginning college anywhere Fall 1978 or later must satisfy the following requirements:

1. University requirements including those relating to General Education, residency, total hours, and grade point average.
2. Successful completion of requirements in an approved major in the College of Liberal Arts.
3. At least 40 hours of course work at the 300- or 400-level.
4. The Liberal Arts student must complete one year of a foreign language. In addition to General Education requirements, he or she must complete one course in either mathematics or computer science and one course in English composition.

Students should consult with an advisor at an early stage in their college career regarding any problems related to these requirements. Students planning to attend graduate school or one of the professional schools such as law or medicine should also consult with their advisers on how best to plan their undergraduate curriculum.

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## COLLEGE OF SCIENCE

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The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological Sciences	Microbiology
Botany	Physics
Chemistry	Physiology
Geology	Zoology
Mathematics	

A minor in Earth Sciences is also offered.

Pre-professional programs are also offered in the following areas:

Dentistry	Podiatry
Medicine	Pharmacy
Optometry	Physical Therapy
Osteopathy	Veterinary Medicine

### Academic Requirements:

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail basis.

**BIOLOGICAL SCIENCES:** Six semester hours in courses offered by the biological sciences departments in the College with the proviso that this requirement cannot be satisfied in whole or in part by General Education courses, but may be substituted for the latter in meeting the General Education requirements.

**FOREIGN LANGUAGE:** The foreign language requirement can be met by one of the following: (a) passing an 8-hour, 100-level sequence in one language, (b) earning 8 hours of 100-level credit in one language by proficiency examination; (c) completing three years of one language in high school with no grade lower than C.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at Southern Illinois University. If the language is presently taught at SIU, academic credit may be earned. If the language is not presently taught at SIU, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student whose native language is English but who has learned another language not taught at SIU may qualify without credit for partial or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

Four hours of foreign language may substitute for credit in GE-C provided the student has taken GE-C courses totalling five hours in two other disciplines. Any additional hours of foreign language may be counted toward the three hours of additional coursework required in areas A/B/C.

**MATHEMATICS:** The mathematics requirement can be met by a) passing Mathematics 108 or 109, or its equivalent or Mathematics 140 (4), or b) completing three years of high school mathematics with no grade lower than a 'C' and achieving a score on the University's Mathematics Placement Test which allows the student to enroll directly into Mathematics 150.

**PHYSICAL SCIENCES:** Six semester hours in courses offered by the physical science departments of the College, with the proviso that the requirement cannot be satisfied in whole or in part by General Education courses, but may be substituted for the latter in meeting the General Education requirements.

**GENERAL REQUIREMENTS:** At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students, at least 24 of these hours must be in residence.

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## SCHOOL OF TECHNICAL CAREERS

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The School of Technical Careers, established in 1973, provides both two-year college-level programs and a unique baccalaureate program in technical careers. The associate degree programs qualify students for employment at the semi-professional and technical level in industry, the allied health occupations, and business. A combination of technical courses and general education courses is included in each program to provide a comprehensive preparation for occupational competence.

Scientific and technical changes have increased the possibilities for employment at the technician's level. For every professional person, industry and business require two to seven properly trained technicians.

The School of Technical Careers occupies facilities on the Carbondale campus and on the Carterville campus nine miles east of Carbondale on Old Route 13. Facilities for aviation programs are located at the Southern Illinois Airport, four miles west of Carbondale. The University provides shuttle bus service to the classes at the Carterville campus and airport.

Accreditation: North Central Association of Colleges and Secondary Schools; American Board of Funeral Service Education, Commission on Dental Accreditation of the American Dental Association, National League for Nursing, Committee on Allied Health Education, CAHEA and the Joint Review Committee for Respiratory Therapy Education, National Fire Protection Association, National Shorthand Reporters Association, National Institute for Automotive Service Excellence.

Degrees Offered: Bachelor of Science and Associate in Applied Science.

### Associate in Applied Science Degree Programs

Allied Health Careers Specialties  
Architectural Technology  
Associate Degree in Nursing  
Automotive Technology  
Aviation Maintenance Technology  
Avionics Technology  
Commercial Graphics-Design  
Construction Technology--Building  
Dental Hygiene  
Dental Technology

Electronic Data Processing  
Electronics Technology  
Law Enforcement  
Photographic Production Technology  
Mortuary Science and Funeral Service  
Physical Therapist Assistant  
Radiologic Technology  
Respiratory Therapy  
Secretarial and Office Specialties  
Tool and Manufacturing Technology

### Bachelor's Degree Programs

Aviation Management  
Career Development  
Consumer Economics and Family Management  
Electronics Management  
Fire Science Management (off-campus only)  
Health Care Management  
Interior Design

### Organizations

Alpha Eta Rho (International Aviation Fraternity), Phi Beta Lambda (International), Sigma Phi Sigma (Mortuary Science), STC Electronics Association, Delta Tau-Dental Lab, Junior SIU American Dental Hygiene Association, and Sigma Phi Alpha (Honorary Dental Hygiene Society).

### Transfer Students

Transfer credit is evaluated for acceptance towards University and General Education requirements by the Office of Admissions and Records after an admission decision has been made. The evaluation toward satisfying of specific curriculum requirements is done by the department or agency directing the specific curriculum.

The General Education program at STC includes courses in the social studies (economics, government, and psychology); in the physical sciences (physics, chemistry, and mathematics); and in oral and written communication (speech, English composition, business correspondence, and technical writing). These courses are identical in most cases to those taught on the Carbondale campus, and credit earned in them is transferable if the STC associate degree student decides to continue beyond the two-year program.

### For further information

Dean  
School of Technical Careers  
Phone 618-536-6682



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## THE GRADUATE SCHOOL

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The primary concern of the Graduate School is graduate instruction and research at Southern Illinois University. The Graduate School therefore plays an essential role in development of instructional and research programs, in acquisition of funds, and in procurement of facilities necessary to encourage and support research by members of its scholarly community. Through students who meet the Graduate School's high standards of achievement of completing advanced courses of study and through students and faculty members who achieve significant results in their research, the Graduate School makes its contribution to the public welfare of the region, the state, the nation, and a number of other countries.

The Graduate School offers master's degrees through 58 programs, the specialist degree in three areas, and the doctoral degree through 24 programs. Under the leadership of a graduate faculty of over 1000 members, research and study by over 3,600 graduate students is promoted. In addition, the Schools of Law and Medicine provide graduate students with excellent opportunities to work with faculty members and students in those professions.

Master's degrees are available in the major fields listed below:

Accountancy (M.Acc.)	Forestry
Administration of Justice	Geography
Agribusiness Economics	Geology
Agricultural Education & Mechanization	Health Education
Animal Industries	Higher Education
Anthropology	History
Applied Linguistics	Journalism
Art (M.F.A.)	Mathematics
Behavior Analysis and Therapy	Microbiology
Biological Sciences	Mining Engineering
Botany	Music (M.Mus.)
Business Administration (M.B.A.)	Occupational Education
Business Education	Philosophy
Chemistry	Physical Education
Cinema and Photography (M.F.A.)	Physics
Communication Disorders and Sciences	Physiology
Community Development	Plant and Soil Science
Computer Science	Political Science
Curriculum and Instruction	Psychology
Economics	Public Affairs (M.P.A.)
Educational Administration	Recreation
Educational Psychology	Rehabilitation Administration and Services
Engineering	Rehabilitation Counseling
Civil Engineering and Mechanics	Social Work
Electrical Engineering	Sociology
Mechanical Engineering & Energy Processes	Special Education
English	Speech Communication
English as a Foreign Language	Statistics
Foreign Languages & Literatures	Telecommunications
French	Theater (M.F.A.)
German	Zoology
Spanish	

Specialist degree programs are available in the fields listed below:

Educational Administration  
Educational Psychology  
Curriculum and Instruction

Doctor's degrees are available in the fields listed below:

Anthropology	Journalism
Botany	Mathematics
Business Administration (Doctor of Business Administration)	Microbiology
Chemistry	Molecular Science
Communication Disorders and Sciences	Philosophy
Economics	Physiology
Education	Political Science
Engineering Science	Psychology
English	Rehabilitation (Doctor of Rehabilitation)
Geography	Sociology
Geology	Speech Communication
Historical Studies	Zoology

The Graduate School, as a part of Southern Illinois University, is fully accredited by the North Central Association of Colleges and Secondary Schools, and by various other professional and academic accrediting organizations. Information on the various graduate programs and on admission to the Graduate School can be obtained by writing Graduate School, Southern Illinois University, Carbondale, Illinois 62901. Phone: 618-536-7791.

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## SCHOOL OF LAW

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Southern Illinois University's School of Law, established in 1973, is fully accredited by the American Bar Association and is a member of the Association of American Law Schools. It is a small law school with approximately 310 students. Roughly, 115 students enter the law school each fall. The student/faculty ratio of 14/1 ranks among the best in the United States. The school is housed in a spacious, modern building which contains the classrooms, law library, legal clinic, faculty offices, and student lounges.

The law school offers an extensive curriculum, emphasizing "skills" courses such as legal writing and research, legal argumentation, trial advocacy, client counseling, etc. The school has an active moot court program and a unique legal clinic in which upperclass students gain practical experience in both civil and criminal cases under the supervision of the clinic director. The school is a leader in the fields of environmental law and computer law.

The law school, in cooperation with the Graduate School, offers concurrent Juris Doctor and Master's degrees in Business Administration, Public Affairs, and Accountancy.

The law library contains 240,000 volumes--more than in over half the academic law libraries in the country--as well as two computer-assisted research systems (LEXIS and Westlaw).

Information on admission to the SIU Law School can be obtained by writing to:

Scott H. Nichols, Director of Admissions  
School of Law  
Southern Illinois University  
Carbondale, Illinois 62901

NOTE: Information on undergraduate preparation necessary for schools of law is listed under Pre-law in this text.

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## SCHOOL OF MEDICINE

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Southern Illinois University School of Medicine was established in 1970 in response to a need in Illinois for increased opportunities for education in the health fields and the more encompassing need for improvements in the health care delivery system. To have the broadest impact possible on health care in central and southern Illinois, the school is deeply engaged in training men and women who will become practicing physicians with special emphasis on primary care.

The first year is conducted on the campus of SIU. Students are instructed in the sciences basic to medicine with a strong emphasis on clinical application and medical problem solving. The remaining three years of the program, which leads to the M.D. degree, are increasingly clinical in their emphasis, and are offered in Springfield. This split-campus organization allows the School of Medicine to make full use of available resources in both locations.

Available facilities include the extensive and well-equipped laboratories of Southern Illinois University at Carbondale; the public and private clinical facilities of Carbondale; and St. John's Hospital and Memorial Hospital in Springfield, each of about 700 beds. A new medical school building in Springfield was completed in 1974 in time for the first class transferring from Carbondale. Inquiries on admission should be addressed to:

Committee on Admissions  
School of Medicine  
Southern Illinois University  
P.O. Box 3926  
Springfield, IL 62708

or

Office of Medical Student Affairs  
Lindegren Hall  
School of Medicine  
Southern Illinois University  
Carbondale, IL 62901

NOTE: Information on undergraduate preparation necessary for schools of medicine is listed under pre-medicine in this text.

## AEROSPACE STUDIES (AFROTC)

The United States Air Force offers "Aerospace Studies" as a voluntary course program which leads to a commission as an Air Force officer following graduation from the University. All cadets are expected to maintain a satisfactory grade point average while in the program and must be able to give evidence of a bona fide baccalaureate degree from the university as a minimum toward meeting the commissioning requirements. The program is divided into two parts: The General Military Course (GMC) for Freshmen and Sophomores, and the Professional Officer Course (POC) for Juniors and Seniors.

Any student is eligible for membership in the Professional Officer Corps. A student who competes successfully for POC membership at a later point in his or her academic years must remain a full-time student during his two year membership in the POC. This full-time status may be at the undergraduate or graduate level.

### General Military Course (GMC)

As the name implies, this portion is "General" in nature. Uniforms are provided, classes are given, and the cadets are under no obligation to the Government. Upon the successful completion of the sophomore requirements, cadets may voluntarily attend a four week Field Training course during the summer at an Air Force Base in order to qualify for entry into the Professional Officer Course. Cadets must successfully complete a course in English composition and Speech during GMC membership.

### Professional Officer Course (POC)

Acceptance into the last two years of the program (POC) is competitive. It requires the successful completion of a physical examination and of the Air Force Officer Qualifying Test (AFOQT). Newly-entering students at this level (AS 300/400) who have not gone through the General Military Course for freshmen and sophomores are also required to attend a six week Field Training course during the summer--this is normally the summer following the successful completion of their sophomore year. Such students and graduate students should contact the SIU AFROTC regarding exceptions to the rule. A course in mathematical reasoning must be taken prior to commissioning.

### Obligations

The GMC cadet is not obligated at any time. Cadets entering the POC must accept a commission into the United States Air Force following graduation. If these conditions are accepted, then the POC does incur a military obligation.

**Payments:** The GMC cadets receive no payments other than that received while in field training at the end of their sophomore year. The POC cadets receive a monthly tax-free subsistence allowance (call AFROTC for the current amount) and are also paid for their field training activities.

**Scholarships:** Air Force ROTC has two types of scholarships available. These are directed almost exclusively to highly qualified cadets in four, three and one-half, three, two and one-half, and two year increments. These are directed almost exclusively at the engineering and science/technical fields of study. Any recipient of such a scholarship must agree to complete successfully at least one year of a major Indo-European or Asian language prior to commissioning. The second scholarship is funded by the state of Illinois, and amounts to a tuition waiver. This is available to cadets regardless of academic major and is awarded through the department for academic excellence to students enrolled/accepted into the ROTC program at SIU. Cadets who have attended Illinois state junior colleges and are currently enrolled in SIU's ROTC courses may also be eligible for a tuition waiver.

### Veterans Commissioning Program

Qualified enlisted personnel enrolled in an SIU resident center may enter the two-year (POC) AFROTC program at Carbondale. Enlistees must meet the following criteria: (1) Graduate within two years of entry in AFROTC at SIU (full-time status); (2) U.S. citizen; (3) Under 33 years of age; (4) Have a minimum of 180 days of active duty; (5) Have qualifying scores on the AFOQT; (6) Be able to attain an honorable discharge with a favorable reenlistment code; (7) Have a qualifying physical examination; (8) Process successfully through your nearest AFROTC detachment. Points of clarification for this program may be addressed by mail or phone to the Carbondale AFROTC Office. The Veterans Commissioning Program for AFROTC is available to all services within the Department of Defense (Army, Navy, Air Force, Marines).

### Special Note to Counselors:

This program is available to all majors. For those applicants who have goals of becoming a pilot, navigator, or missile officer, any academic major is viable. We do, however, have a special need for engineering, mathematics, chemistry, computer science, and physics majors. All academic work completed since graduation from high school will be evaluated.



ARMY MILITARY SCIENCE  
(Army Reserve Officer Training Corp)

Army Military Science Studies is a voluntary course sequence leading to a commission as an officer in the United States Army (Active Army, Army Reserves, or Army National Guard). Students who complete the advanced course of studies six or more months prior to attaining a bachelor's degree, reservists and guardsmen participating in the simultaneous membership program, and students with guaranteed reserve forces duty can be commissioned in the United States Army Reserve or National Guard prior to graduating through the early commissioning program. Students entering active duty as reserve or regular Army officers must have a bachelor's degree. All students must meet University academic requirements and maintain satisfactory academic progress to enter or remain in the ROTC program. Enrollment in the basic course (freshman and sophomore years) is unrestricted and carries no military obligation.

Acceptance into the advanced course (junior and senior years, 300-level) is contingent on meeting academic, basic course, physical, age, and citizenship prerequisites. Students may enter the advanced course anytime prerequisites are met regardless of their academic year in school. Students studying in any field of study at Southern Illinois University are eligible to enter the Army Military Science program. Students on Army ROTC scholarship and students in the advanced course do incur a military obligation. The nature of the obligation varies depending on whether the student is on scholarship, and whether the student goes on active duty or chooses to serve in the Reserves or National Guard. All Army Military Science scholarships and advanced course students are paid a tax free subsistence allowance of \$100.00 per month.

Any student, graduate or undergraduate, with at least two academic years remaining at the University, may participate in the advanced program. Students completing a six-week basic leadership practicum, veterans, students completing the basic course, National Guard and United States Army Reserve personnel may enter the advanced course without completing the basic course. Advance course students attend a six-week advanced leadership camp between their first and second years of their advanced course. This training is conducted at an army post. Students are paid travel pay to and from camp, furnished room and board, and paid while at camp.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for Army Military Science scholarships for one, two, and three years. These scholarships pay full tuition, fees, books, and a \$100 per month subsistence allowance. Any Southern Illinois University student who has at least two academic years of school remaining and who can meet advanced course prerequisites may compete for any Army ROTC scholarship. Illinois residents, who are enrolled in ROTC, can compete for state Army ROTC scholarships, which pay tuition and other selected expenses.

In addition to courses offered for academic credit, the Army Military Science program sponsors extracurricular activities. The Ranger Company and Color Guard is open to all Army ROTC students. The Pershing Rifles, a national honorary society, is open to selected Army Military Science cadets. The Rifle Team, a competitive shooting team, is also open to selected Army Military Science cadets.

The Army Military Science department is located in Kesnar Hall, Bldg. 112, Small Group Housing; telephone 618-453-5786.

## ENTRY LEVEL JOB TITLES

WHAT DO I DO WITH A DEGREE IN \_\_\_\_\_?

The Career Planning and Placement Center at SIU has compiled a list of titles associated with the first job recent graduates obtained in business, industry or government. We have listed the titles for each non-teaching major.

The list is intended to be used to assist teachers, counselors, faculty members and students faced with the question: "What does one do with a degree in \_\_\_\_\_?"

The Career Planning and Placement Center hopes that this listing will encourage both counselors and potential SIU students to seek additional information about career opportunities prior to matriculation and for students to utilize the services of the SIU Career Planning and Placement Center once they are enrolled.

For additional information, please contact the following placement consultants:

Agriculture	Anthony Chavez
Business and Administration	Marilyn DeTomas
Communications and Fine Arts	Valerie Brew Parrish
Cooperative Education	Anthony Chavez
Education	Jane Tierney
Engineering and Technology	Michael Murray
Higher Education and Public School Administration	Richard Gray
Human Resources	Valerie Brew Parrish
Liberal Arts	Barbara Costello
Science	Leslye Ellison
School of Technical Careers	Frank Klein
International Placement	Frank Klein

Richard Gray, Director  
Telephone - 618-453-2391  
Woody Hall, B-204

## ACCOUNTING

College of Business and Administration  
(Bachelor of Science)

Dr. Frederick Wu, Chairperson

Telephone - 618-453-2289

Henry J. Rehn Hall, Rm. 232

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties external to the business and by management within the business.

The curriculum is designed to prepare a student to assume a professional position as a certified public accountant or to join the management team in industry and government. The courses provide a basic understanding of all phases of accounting and permit the student to elect courses to prepare for a particular area of interest.

The Department of Accountancy has a working relationship with several national public accounting firms with whom the department arranges for student work experience during the spring semester of their senior year. Students work off campus in the field of accounting under the direction of the cooperating public accounting firms. While most of the work assignments are in the St. Louis and Chicago areas, some student have been assigned, at their request, in other geographical districts as far away as New Jersey and Texas. The student receives valuable work experience, a salary, and three hours of university credit under the internship program. Interns are selected by the Department.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health and		
GE-E-2	Well Being (select) <sup>1</sup>	3 (2)	-
GE-C	Humanities (select) <sup>1</sup>	-	3
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications <sup>2</sup>	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or	Finite Mathematics & Algebra or		
139-3	Finite Mathematics	3 (5)	-
		<u>14-17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health and		
GE-E-2	Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C/	General Education Electives	-	3
*ACCT 220, 230	Financial, Managerial Accounting	3	3
*CS 212 or	Intro. to Computer Programming (Pascal) or		
EDP 217	Computing for Business Admin. (Fortran)	-	3
*ECON 214, 215	Economics, Macro, Micro <sup>3</sup>	3	3
*MATH 117-5 or	Finite Mathematics & Calculus or Short		
140-4	Course in Calculus	4 (5)	-
		<u>16</u>	<u>15</u>

\*Required course for a major in Accounting.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>MGT 202 substitutes for GE-D 118

<sup>3</sup>ECON 214 or 215 counts toward GE-B credit.

### Accounting As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy (M.Acc.), DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year.

Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

See the College of Business and Administration listing for their retention policy and the 40% rule. Furthermore, a 2.00 grade point average is required in SIU accounting courses for graduation. A 'C' or better is required in all prerequisite accounting courses. This does not apply to Accounting 220, the prerequisite for Accounting 230, for non-accounting majors.

Representative First Job Titles: Accountant, Accounting and Fiscal Admin. Career Trainee, Revenue Collection Officer, Auditor, Grants and Contract Officer, Assistant Controller, Plant Accountant, Retail Controller Trainee, Junior Systems Analyst, Financial Management Trainee, Internal Auditor, Accounting Management Trainee, Property Accountant, Budget Accountant, Systems Accountant, Tax Accountant.



## ADMINISTRATION OF JUSTICE

College of Human Resources  
(Bachelor of Science)

Divisional Executive Officer  
Telephone - 618-453-5701  
Faner Building, 4th Floor

The Bachelor of Science degree with a major in Administration of Justice meets the career objectives of students interested in law enforcement, private security management, corrections, juvenile services and other roles in social and criminal justice.

Five areas of concentration--Law Enforcement, Correctional Program Services, Correctional Management, Private Security Management and Juvenile Justice and Delinquency Prevention--have been delineated to give a range of choices suitable for most students preparing for careers in a field of criminal justice. The policy of this Center, however, is to fit course requirements to the given student's career objectives if none of these concentrations are appropriate. In such situations, the student will be required to take the core courses, and, under the supervision of his or her advisor, develop an appropriate battery of courses in lieu of one of the four areas of concentration.

Field internship placement is an important element in the Administration of Justice program and internships are encouraged for qualified students.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Sciences (select) <sup>1</sup>	3	3
GE-B	Social Sciences (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health & Well Being (select) <sup>1</sup>	-	2
AJ 201 or 290	Intro to Criminal Justice System or Intro to Criminal Behavior	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Sciences (select) <sup>1</sup>	3	-
GE-B	Social Sciences (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health & Well Being (select) <sup>1</sup>	-	2
AJ 201 or AJ 290	Intro to Criminal Justice System or Intro to Criminal Behavior	3	-
GE-A,B,C	Elective (select) <sup>1</sup>	3	-
AJ 310	Intro to Criminal Law	-	3
AJ	Electives	3	3
		<u>15</u>	<u>14</u>

\*Required courses for a major in Administration of Justice.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Education. The preceding two-year outline can be altered to meet the needs and abilities of the students.

### Third and Fourth Years

The last two years of a student's program concentrate on specific career or professional objectives. The student must take the Division Requirement of 15 semester hours, plus meet the requirements of a chosen concentration from the following areas: Law Enforcement, Juvenile Justice and Delinquency Prevention, Correctional Program Services, Correctional Management, Private Security Management or a concentration specifically designed and agreed upon with the student's faculty advisor to meet the career objectives of the student.

### Administration of Justice As A Major

Graduate Degree program available.

No foreign language requirement, however, Spanish is recommended.

A minor (secondary concentration) is required and is selected in consultation with the student's academic advisor. For a secondary concentration, the student selects 18 hours of courses constituting a systematic sphere of study relevant to his or her interests and needs. For a minor, students must fulfill the appropriate department's requirements.

Multi-disciplinary staff with backgrounds in Sociology, Psychology, Education, Law and Rehabilitation provide instruction. Most of the staff also have practical experience in the Criminal Justice System.

Outstanding faculty, nationally recognized program, guest speakers, special programs, international emphasis, and career oriented experience available.

Representative First Job Titles: Crime Investigator, Patrolperson, Juvenile Delinquency Education Specialist, Alcoholism & Drug Addiction Counselor, Delinquency Preventor, Community Planning & Redevelopment Officer, Morale Education Specialist, Child Care Worker, Probation & Parole Administrator, Rehabilitation & Resettlement Analyst, Social & Behavioral Researcher, Outreach Director, YMCA-YWCA Director & Program Specialist, Prisoner Classification Interviewer, Public Aide, Caseworker, Security, FBI Agent, Penology and Corrections Officer.

The Agricultural Economics/Agribusiness curriculum is designed to prepare men and women for attractive careers related to the business and public policy aspects of agriculture. Courses offered include agribusiness management, finance, marketing, prices, policy, farm management and natural resource management. In order to accomplish the objectives of providing the student with a basic understanding of business-economic decision principles applied to agriculture, the program includes courses from the Department of Economics, College of Business and Administration and the School of Agriculture. To accommodate the various needs of students, there are two options available in the agribusiness economics major: (a) 40 hours in agriculture (The Agriculture Option) which provides a broad training in agriculture and (b) 32 hours in agriculture (The Business-Economics Option) which provides less training in agriculture and more in economics and/or business.

Among career opportunities are grain merchandising, livestock marketing, farm credit, farm management, agribusiness management, sales of farm supplies (chemicals, machinery, feed, seed, petroleum), administration of farm programs, agricultural extension and real estate brokerage.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GE-A 106	Chemistry for Non-Science Majors	-	3
GE-A	Physical Sciences <sup>1</sup>	3	-
GE-B	Social Science <sup>1</sup>	-	3
GE-C	Humanities <sup>1</sup>	-	3
*GE-D 101, 118	English Composition, Technical Report Writing	3	2
MATH 116	Finite Mathematics and Algebra <sup>2</sup>	5	-
GE-E	Human Health and Well Being <sup>1</sup>	-	2
*ABE 204	Introduction to Agricultural Economics <sup>3</sup>	-	3
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices	1	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GE-A 115	Introductory Biology	3	-
GE-B	Social Studies <sup>1</sup>	3	-
GE-C	Humanities <sup>1</sup>	3	3
*GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being <sup>1</sup>	1	2
*ECON 214, 215	Economics - Macro, Micro	3	3
	Electives <sup>4</sup>	3	3
		<u>16</u>	<u>14</u>

\*Required courses for a major in Agricultural Economics/Agribusiness.

<sup>1</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup> Mathematics 116 is required in both options. For the Business Economics option, the student should take Math 117, Finite Math and Calculus, during the spring semester, dropping a social science or humanities and the GE-E.

<sup>3</sup> ABE 204 can be substituted as GE-B credit.

<sup>4</sup> Accounting, quantitative methods, or agriculture recommended. Two courses in accounting are desirable.

### Third and Fourth Years

The last two years of the agricultural economics/agri-business curriculum are devoted to advanced courses in agricultural economics, agri-business, economics and business to meet the goals and objectives of the student. About twenty hours of free electives are included in the last two years of this curriculum.

### Agribusiness Economics (Agricultural Economics/Agri-business) As A Major

No minor required. No foreign language required. Internships are encouraged for the summer semesters. Masters degree available in Agricultural Economics and Ag Services. Class size 20-50; senior year 15-30. Department is sponsor for special workshops on campus. Students attending junior colleges without an agricultural program can complete an Agricultural Economics/Agri-business major in two years.

Representative First Job Titles: Management Trainee, Agricultural Commodities Inspector, Agricultural Commodity Warehouse Examiner, Agricultural Economist, Agricultural Management Specialist, Agricultural Marketing Specialist, Agricultural Market Reporter, etc.

AGRICULTURAL EDUCATION  
(Vocational)  
College of Education  
School of Agriculture  
(Bachelor of Science)

Dr. James Legacy, Chairperson  
Telephone - 618-536-7733  
Agriculture Building, Room 223

Completion of a four-year course of study in agricultural education leads to certification as a teacher of agricultural occupations. Men and women students have the opportunity to specialize in one of the following areas: agriculture business, agriculture mechanization, ornamental horticulture, plant production, soil conservation, parks and recreation, forestry, conservation, or animal production.

Employment opportunities for agricultural education majors are excellent not only as teachers in high schools and community colleges, but the breadth of training also provides educational background needed for adult training programs provided by high schools, colleges, extension service, and industry. Many foreign agricultural positions are open to persons with this training. This curriculum also provides the educational background sought by many agribusiness firms for sales and management training positions.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-A 106	Chemistry for Non-Science Majors <sup>1</sup>	-	3
GE-B	Social Studies (select)	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101, 118	English Composition, Technical Report Writing <sup>2</sup>	3	2
GE-D 107	Intermediate Algebra <sup>4</sup>	3	-
GE-E 201	Healthful Living <sup>2</sup>	2	-
ABE 204	Introduction to Agricultural Economics <sup>3</sup>	-	3
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices	1	-
	Electives	-	2
		15	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	-
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-B 212			
or 301	American Government or US History <sup>2</sup>	-	3
GE-C	Literature (select)	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-D 153	Public Speaking <sup>2</sup>	3	-
GE-E	P.E. Activity <sup>2</sup>	1	1
PLSS 200	Principles of Field Crop Production	-	3
Agriculture	Agricultural electives <sup>5</sup>	3	3
	Elective	-	3
		16	16

<sup>1</sup> A student with background and interest in chemistry is recommended to take a higher level of chemistry.

<sup>2</sup> Courses required for certification include GE-B 202; GE-B 212, or 301; GE-D 101, GE-D 117, 118 or 119; GE-D 153; GE-E 100-114 (2 hrs.) GE-E 201; and one additional English course from GE-C, GE-D or department.

<sup>3</sup> ABE 204 can be substituted for GE-B 211 (Contemporary Economics) or vice versa.

<sup>4</sup> College Algebra recommended.

<sup>5</sup> Student should consult with agriculture counselor regarding options available for agriculture electives.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives and electives.

Important - see requirements for entrance into Formal Teacher Education Program.

Agricultural Education As A Major

A student may select one of eight agricultural speciality options for major emphasis. Information about these specialties may be secured from the department.

No minor required. No foreign language required. Approximate class size 30. Masters degree available in Agricultural Education. Methods and student teaching will be stressed junior and senior years. Courses in both the School of Agriculture and the College of Education are included.



AGRICULTURAL EDUCATION AND MECHANIZATION

(Agricultural Information)

School of Agriculture

(Bachelor of Science)

Dr. James Legacy, Chairperson

Telephone - 618-536-7733

Agriculture Building, Room 223

The Agriculture Information specialization is intended for those students who plan to be involved in agricultural education programs in extension, post-secondary educational institutions, and industry. Persons desiring to be certified for public secondary teaching should follow the Agricultural Education major.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GE-A 115	Biology	3	-
*GE-A 106	Chemistry for Non-Science Majors <sup>1</sup>	-	3
GE-B	Social Studies	-	3
GE-C	Humanities <sup>4</sup>	3	3
*GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra <sup>2</sup>	3	-
GE-E	Human Health and Well Being	-	2
ABE 204	Introduction to Ag Economics <sup>3</sup>	-	3
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices	1	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science <sup>4</sup>	3	-
*GE-B 108 or 202	The Sociological Perspective or Introduction to Psychology	3	-
GE-B	Social Studies <sup>4</sup>	-	3
GE-C	Humanities <sup>4</sup>	-	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being	1	-
PLSS 200	Plant and Soil Science Course	-	3
Agriculture	Agriculture Electives	3	3
	Electives	<u>3</u>	<u>3</u>
		<u>16</u>	<u>15</u>

\*Required or strongly recommended courses for Agricultural Information specialization.

<sup>1</sup> A student with background and interest in chemistry is recommended to take a higher level of chemistry.

<sup>2</sup> College Algebra recommended.

<sup>3</sup> ABE 204 can be substituted as GE-B credit.

<sup>4</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

Third and Fourth Years

The last two years of a student's program concentrates on specific professional objectives and electives.

Agricultural Educational and Mechanization, Agriculture Information

No minor required. No foreign language required. Approximate class size 30. Master's degree available in Agricultural Education and Mechanization.

**Representative First Job Titles:** Agricultural Communications Specialist in Newspaper, Radio, T.V., Advertising or Ag. Photojournalism; Agricultural Microcomputer Application Specialist, Assistant County Extension Advisor; Product Education Specialist; Assistant Manager (Farm Supply Business); Agricultural Industry Representative; Agricultural Manager; Sales Representative.

AGRICULTURAL EDUCATION AND MECHANIZATION  
(Agricultural Mechanization)  
School of Agriculture  
(Bachelor of Science)

Dr. James Legacy, Chairperson  
Telephone - 618-536-7733  
Agriculture Building, Room 223

The Agricultural Education and Mechanization curriculum with a specialization in agricultural mechanization is designed to prepare individuals for attractive careers in agriculture and related businesses, in industries that are related to agriculture, or to continue their professional development by entering graduate school. A few career opportunities include: grain elevator operations; farm supply sales; operational positions in the processing industry; power use advisors with electric power supplying agencies and companies; field testing of farm equipment; product education positions; service representatives for the various power and machinery companies; farming; and farm management. Due to the extensive mechanization and technology in agriculture and the related industries employment opportunities are excellent.

Courses in agricultural mechanization are offered in construction and repair processes; agricultural power and machinery; agricultural electrification; agricultural buildings and structures; soil and water conservation; and agricultural materials processing, handling, and storage.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
*GE-A 106	Chemistry for Non-Science Majors	-	3
*GE-A 115	Biology	3	-
*ABE 204	Introduction to Ag Economics	-	3
GE-C	Humanities <sup>1</sup>	-	3
*GE-D 101, 118	English Composition, Technical Report Writing	3	2
*MATH 108 & 109	College Algebra and Trigonometry	3	3
GE-E	Human Health and Well Being <sup>1</sup>	2	2
*ANI 121	Science of Animals that Serve Mankind	3	-
*ANI 122	Production and Processing Practices	1	-
		15	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*PHYS 203 a,b	College Physics	3	3
GE-B	Social Studies <sup>1</sup>	3	-
GE-C	Humanities <sup>1</sup>	-	3
*GE-D 153	Public Speaking	-	3
AGEM 171	Land Measurement	1	-
AGEM 172	Agricultural Power and Machinery	1	-
AGEM 173	Agricultural Electrification	1	-
AGEM 174	Agricultural Structures	1	-
PLSS 200	Principles of Field Crop Production	-	3
	Elective	2	-
		15	15

\*Required or strongly recommended courses for agricultural mechanization majors.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

Third and Fourth Years

The last two years of the individual's program concentrate on work that best leads the individual toward his or her professional goals. The individual will complete 42 semester hours in agriculture of which 18 hours are in agricultural mechanization and 28 semester hours of approved free electives. Elective courses may be taken in agriculture or supporting areas.

Agricultural Educational and Mechanization (Agricultural Mechanization As A Major)

Individuals do not need to have an agricultural background to enter the agricultural mechanization program.

Internships are encouraged for the summer terms. No minor required. No foreign language required. Masters degree available. Class size 20-50; senior year 15-30. Department sponsors special workshops on campus.

Representative First Job Titles: Farm Machinery Sales and Service, Power Use Advisor, Agricultural Commodities Inspector, Agricultural Commodity Warehouse Examiner, Agricultural Industry's Representative, Farm Manager, Industrial Relations Specialist, Industrial Property Management Specialist, Agricultural Manager, Agribusiness Technician, Agricultural Engineer, Soil and Water Conservationist, Agriculture Business Manager.

AGRICULTURE (GENERAL)  
School of Agriculture  
(Bachelor of Science)

Dr. Donald M. Elkins,  
Chief Academic Advisor  
Telephone - 618-453-2469  
Agriculture Building, Room 206

General Agriculture is intended for those students who are seeking broad backgrounds in agriculture. It is the major of greatest flexibility within the School of Agriculture and is probably the best major for students who have not chosen a professional area for emphasis. Many agriculture students are graduated with a major in General Agriculture. Some students start as General Agriculture majors, later identify an area in which they want to specialize and transfer to the appropriate major for that specialty. Other students start in one of the specialized areas and later decide to transfer to and be graduated from General Agriculture. Possible specializations within the General Agriculture major include: Production Agriculture, and Environmental Studies.

Students in this major gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communication, agricultural business, agricultural industry and agricultural production.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing (select one) <sup>1</sup>	-	2
GE-D 107 or MATH 108 or 109	Intermediate Algebra or College Algebra	3-5	-
ABE 204	Introduction to Agricultural Economics <sup>2</sup>	-	3
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices	1	-
CHEM 140a	Chemistry	-	4
		14-16	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
PLSS 240	Soil Science	-	4
PLSS 200	Principles of Field Crop Production	3	-
BOT 200	General Botany and Lab	4	-
CHEM 140b	Chemistry	4	-
		16	15

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section General Education for the Transfer Student.

<sup>2</sup>Agribusiness Economics 204 substitutes as GE-B credit as well as counting as hours toward the major.

Agriculture As A Major

Major requirements include a minimum of eight semester hours of courses in each of three departments within the School of Agriculture, plus additional elective courses in agriculture or forestry to complete a total of 40 semester hours.

No minor required; no foreign language required.



ALLIED HEALTH CAREERS SPECIALTIES  
School of Technical Careers  
(Associate in Applied Science)

Arch Lugenbeel, Coordinator  
Telephone - 618-536-6682  
STC Building, Room 18E

Allied Health Careers Specialties is a highly individualized program which prepares graduates for service in medical facilities where they may be employed as a single or multi-competent technician. In general, students take a common core of coursework during the first year. This core includes courses such as physiology, human anatomy, medical terminology, English composition, speech and college algebra. The remainder of the degree is in specialty courses and clinical studies. The clinical studies are based upon this basic coursework. The majority of the clinical studies will be completed off-campus in health care facilities. The program leads to an associate degree.

In addition to meeting University admission requirements, students must also contact the program coordinator above for details on admission to the program. Enrollment in the program is limited due to limited clinical facilities.

Students in the clinical portion of the program should expect to spend approximately \$135.00 per clinical specialty area for uniforms, materials, and insurance, in addition to tuition and fees.

For specific information on the program and its specialized application, contact the coordinator.

Also see: Radiological Technology and Respiratory Therapy.

ANIMAL INDUSTRIES  
(Production Option)  
School of Agriculture  
(Bachelor of Science)

Dr. A. W. Young, Chairperson  
Telephone - 618-453-2329  
Agriculture Building, Room 127

Instruction, demonstration, and consultation are provided in companion animals, dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management including meats, animal hygiene, reproduction, animal breeding and nutrition.

The student has the opportunity to select courses in other areas of agriculture or related fields, such as business, communications, or physical sciences. This selection allows the student to include in his or her education the agronomic, agricultural economic, and agricultural engineering phases of agriculture, pre-veterinary medicine, or business as related to animal production.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Zoology	4	-
GE-B	Social Studies <sup>1</sup>	3	3
GE-C	Humanities <sup>1</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing	-	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being	2	2
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices of the Animal Industry	1	-
AG	Agriculture Elective	-	3
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies	-	3
GE-C	Humanities	3	3
GE-D 153	Public Speaking	-	3
AG	Agriculture Elective	3	3
CHEM 140a,b	Chemistry <sup>2</sup>	4	4
PHSL 208,209	Physiology	4	-
		<u>14</u>	<u>16</u>

<sup>1</sup> See General Education for the Transfer Student for information on SIU's General Education requirements.

<sup>2</sup> Substitutes for GE-A Chemistry.

Third and Fourth Years

Courses during the last two years of a student's program concentrate on requirements, electives in Animal Industries, other departments in the School of Agriculture as well as free electives.

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receive credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent positions.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-60; senior year 10-30.

Representative First Job Titles: Animal Husbandman, Animal Physiologist, Animal Breeding Expert, Animal Ecologist, Animal Taxonomist, Swine Herdsman, Animal Industry Representative, Animal Hygiene Specialist, Farm Manager, Dairy Cattle Manager, Product Evaluator, Animal Control Biologist, Livestock Manager, Animal Nutrition Specialist, Dairy Products Tester, Poultry Manager.

ANIMAL INDUSTRIES  
(Science and Pre-Veterinary Medicine Option)  
School of Agriculture  
(Bachelor of Science)

Dr. A. W. Young, Chairperson  
Telephone - 618-453-2329  
Agriculture Building, Room 127

Instruction, demonstration, and consultation are provided in companion animals, dairy, horse, livestock and poultry production, animal behavior, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management, including meats, animal hygiene, reproduction, animal breeding and nutrition.

Completing the science and pre-veterinary option of the Animal Industries major qualifies one for a B.S. degree, meets the course requirements for admission to a veterinary medicine program and serves as an excellent foundation for graduate work in Animal Science.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119)	Writing	-	2
GE-E	Human Health and Well Being	2	2
ANI 121	Science of Animals that Serve Mankind	3	-
ANI 122	Production and Processing Practices of Animal Industry	1	-
BIOLOGY	(core suggested)	4	4
MATH 108, 109	College Algebra and Trigonometry <sup>1</sup>	3	3
	Agriculture Elective	-	3
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies <sup>4</sup>	3	3
GE-C	Humanities	-	3
CHEM 222a,b	Introduction to Chemical Principles <sup>2</sup>	4	4
PHSL 208, 209	Physiology	4	-
PHYS 203a,b	College Physics <sup>3</sup>	3	3
PHYS 253a,b	College Physics Lab	1	1
	Agriculture Elective	-	3
		<u>15</u>	<u>17</u>

<sup>1</sup>Substitutes for GE-D 107 (Math).

<sup>2</sup>Substitutes for GE-A 106 (Chemistry).

<sup>3</sup>Substitutes for GE-A 101 (Physics).

<sup>4</sup>ABE 204 can be substituted as GE-B credit.

Third and Fourth Years

In addition to completing General Education Requirements, chemistry, biochemistry and microbiology courses, the last two years of a student's program concentrate on requirements and electives in animal industries, other departments in the School of Agriculture as well as free electives.

Animal Industries As A Major

Many students work at the various livestock centers and the laboratories to help defray the cost of education as well as to gain valuable experience. An intern course also enables a student to work in special areas (away from campus) and receive credit. Graduates are prepared for employment in many phases of animal agriculture. The department maintains close contact with the industry and assists in placing graduates in permanent position.

No minor required. No foreign language required. Most of teaching staff have advanced degrees (Ph.D.). Graduate programs are available. Class size 20-60; senior year 10-30.

Representative First Job Titles: Animal Husbandman, Animal Physiologist, Animal Breeding Expert, Animal Ecologist, Animal Taxonomist, Swine Herdsman, Animal Industry Representative, Animal Hygiene Specialist, Farm Manager, Dairy Cattle Manager, Product Evaluator, Animal Control Biologist, Livestock Manager, Animal Nutrition Specialist, Dairy Products Tester, Poultry Manager.



The undergraduate program in anthropology at SIU gives students a broad and well-rounded exposure to the field. A variety of courses is offered in all four sub-fields, that is, archaeology, physical anthropology, linguistics, and socio-cultural anthropology. The core of the program is a set of four courses that introduce the student to the basic questions and issues of the sub-fields and the methods and techniques used to address them.

This core is supplemented by specialty courses, such as those on societies in different geographic areas, economic and ecological anthropology, the anthropology of law, conservation archaeology, applied anthropology, human evolution, human genetics and demography, folklore, religion, language and culture, primate behavior, and origins of civilization. Several applied or "hands-on" courses are available for students to get actual experience in the laboratory and the field, as well as a practicum in museum studies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117,			
118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
Elective		3	-
		<u>14</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>2</sup>	4	4
GE-D 152 or 153	Interpersonal Communications or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
MATH or CS	Mathematics or Computer Science <sup>3</sup>	3	-
ANTH 300D,A	Sociocultural & Physical Anthropology <sup>4</sup>	3	3
ANTH 300B or C	Linguistic Anthropology or Archaeology	-	3
		<u>16</u>	<u>15</u>

<sup>1</sup> See General Education for the Transfer Student.

<sup>2</sup> Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit. Students intending to pursue a graduate education should realize that a foreign language would likely be required for graduate school admission; for these students two years of foreign language is recommended.

<sup>3</sup> One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>4</sup> Sociocultural Anthropology is central to the core curriculum and should be taken as soon as possible. Any two of 300A, B, and C may be taken the second year.

#### Anthropology As A Major

Resources for anthropology students include a large university library, a university museum, a fully equipped computer center, and the Center for Archaeological Investigations which carries out numerous projects. In addition, the anthropology department has physical anthropology, archaeology, and linguistic laboratories.

The anthropology faculty has a wide array of field and research experience in all sub-fields of the discipline. Faculty have conducted field research in Latin American and the Caribbean, Africa, Eastern and Southwestern United States, South and Southeast Asia, and the Pacific Islands. Some also have applied their anthropological knowledge to solving practical problems in various parts of the world.

Opportunities exist for undergraduates to get involved in anthropology outside the classroom. An archaeology field school is offered every summer, and students often work on varied field and laboratory research projects. An undergraduate Anthropology Club sponsors such activities as trips to nearby archaeological sites, lectures, and the annual picnic. In addition, visiting anthropologists from other universities present talks, and the SIU faculty and graduate students regularly give informal lunchtime lectures about their current research.

Representative First Job Titles: Secondary or College Teacher, Museum Curator, Social Worker, Archaeologist, Contract Archaeologist, Applied Linguist, Park Service Historian, Population Analyst, Physical Anthropologist, Overseas Sales Representative, Personnel Officer, Archivist, Community Development Planner, Medical Anthropologist, Exhibit Preparator, Archival Worker.

ARCHITECTURAL TECHNOLOGY  
School of Technical Careers  
(Associate in Applied Science)

Edward J. Walchli, A.I.A.  
Program Coordinator  
Telephone - 618-536-4411  
Quigley Hall, Room 411

This is not strictly a drafting program. A student in this program will gain as much knowledge and skill that can be provided in two years. The courses are about equally divided between Design/Theory and Production/Technology. This will allow the graduate to be on an in-line track towards such specific positions as job captain, production leader, specification writer, architectural observer, architectural estimator, designer, or computer operator/programmer.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 153	Public Speaking	-	3
GE-D 101	English Composition	3	-
GE-D 118	Technical Writing	-	2
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
ARCH 111	Architectural Drafting	7.5	-
ARCH 112	Architectural Graphics	3.5	-
ARCH 113	Architectural History	3	-
ARCH 124	Architectural Drawings I	-	6
ARCH 125	Architectural Design I	-	4
		<u>21</u>	<u>19</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
ARCH 214	Architectural Drawings II	6	-
ARCH 215	Architectural Design II	4	-
ARCH 216	Architectural Engineering I	4	-
ARCH 217	Architectural Systems	2	-
ARCH 219	Site Work and Planning	2	-
ARCH 224	Architectural Drawings III	-	6
ARCH 225	Architectural Design III	-	4
ARCH 226	Architectural Engineering II	-	4
ARCH 229	Architectural Estimating	-	2
ARCH 220	Architectural Specifications	-	2
		<u>18</u>	<u>18</u>

Electives

ARCH 318	Beginning CAD	3
ARCH 328	Computer Aided Drafting	3
ARCH 338	Computer Aided Design	3
ARCH 354	Architectural Project Development	8

A minimum of 76 hours of credit must be completed for graduation.

Architectural Drafting and Design As A Major

Instruction is provided by graduate architects. Some are licensed and some are members of the American Institute of Architects. Years of experience allow the faculty to teach courses that enable the student to understand: the architectural and design professions; components of the construction industry; the design and production process; the historical, mathematical and physical factors involved in all. This program covers building materials, systems and construction and preparation and interpretation of technical communications (architectural drawings, models, and architectural delineations).

In the courses in Computer Aided Drafting and Design, there are varied types of stations including color and three dimension in order to give the student the best opportunities in this discipline.

Field trips to nearby cities to study historical and contemporary architecture are made each year. Allowance should be made in the student's budget of approximately \$400.00 for equipment and supplies.

Representative First Job Titles: Architectural Draftsman or Designer, Inspector, Specification Writer, Coordinator, Work Supervisor, Estimator.

## ART

(Art History)  
(General Studio)  
College of Communications and Fine Arts  
(Bachelor of Arts)  
(Art Education)  
College of Communications and Fine Arts  
(Bachelor of Arts)  
College of Education  
(Bachelor of Science)

L. Brent Kington, Director  
Telephone - 618-453-4315  
Allyn Building, Room 109

Patricia B. Covington, Head of  
Undergraduate Studies  
Telephone 618-453-4313  
Allyn Building, Room 103

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone 618-453-2354  
Wham Building, Room 135

Undergraduate course offerings in art history, general studio, and art education lead to the Bachelor of Arts degree. The degree in Art History requires 63 hours in art, in general studio 60 hours in art, and in art education 56 hours in art and 25 hours in professional education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Science <sup>2</sup>	-	3
GE-C	Humanities <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Expository, Technical Report or Creative Writing	-	2
GE-E	Human Health and Well Being	-	2
ART 100 a & b	Basic Studio	3	3
ART 107	Fundamentals of Art	3	-
ART 110	Intro to Drawing I	3	-
ART 120	Intro to Drawing II	-	3
ART 207	Survey of Art	-	3
		<hr/> 15	<hr/> 16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science	3	-
GE-B	Social Science Course <sup>2</sup>	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
ART 200	Intro to Drawing III	3	-
ART 201	Beginning Painting	-	3
ART 203	Beginning Sculpture	3	-
ART 204, 205 or 206	Beginning Ceramics, Metals, or Fibers	-	3
ART 300	Intermediate Drawing	-	3
ART 346	Survey of 20th Century Art	3	-
		<hr/> 15	<hr/> 15

<sup>1</sup>Certain specializations require particular courses in the GE-C area; art education requires a literature course and art history requires 8 hours of French or German. All specializations in the School of Art receive 6 hours of GE-C substitution for Art 100 a or b and Art 207.

<sup>2</sup>Students whose major specialization is art education must fulfill certain requirements in General Education. They must have at least a C in GE-D 101 and 117, 118 or 119 and also in their GE-C literature course. From GE-B, they must select GE-B 202, psychology, and GE-B 300, American History, or GE-B 212, American Government. From GE-E, they must select GE-E 201, Healthful Living, and two hours of activity.

## Art Education As A Major

Students may pursue Art Education within either the College of Communications and Fine Arts, or the College of Education

A student interested in the major should become aware of the requirements for entrance into the Teacher Education Program.



ART  
 (Drawing)  
 (Painting)  
 (Printmaking)  
 (Sculpture/Foundry)  
 (Ceramics/Glass)  
 (Metals)  
 (Fibers/Weaving)  
 College of Communications and Fine Arts  
 (Bachelor of Fine Arts)

L. Brent Kington, Director  
 Telephone - 618-453-4315  
 Allyn Building, Room 109

Patricia B. Covington, Head  
 of Undergraduate Studies  
 Telephone 618-453-4313  
 Allyn Building, Room 103

Undergraduate offerings in art provide introductory and specialized experiences. The courses of study offered leading toward the Bachelor of Fine Arts degree in art requires 90 hours of art.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Science	-	3
GE-C	Humanities <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Expository, Technical Report or Creative Writing	-	2
GE-E	Human Health and Well Being	-	2
ART 100 a & b	Basic Studio	3	3
ART 107	Fundamentals of Art <sup>1</sup>	3	-
ART 110	Intro to Drawing I	3	-
ART 120	Intro to Drawing II	-	3
ART 207	Survey of Art <sup>1</sup>	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science	3	-
GE-B	Social Science Course	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 152 or 153	Interpersonal Communications or Public Speaking	-	3
ART 200	Intro to Drawing III	3	-
ART 201	Beginning Painting	-	3
ART 203	Beginning Sculpture	3	-
ART 204, 205 or 206	Beginning Ceramics, Metals, or Fibers	-	3
ART 300	Intermediate Drawing	-	3
ART 346	Survey of 20th Century Art	3	-
		<u>15</u>	<u>15</u>

<sup>1</sup>All specializations in the School of Art receive 6 hours of GE-C substitution for Art 100 a or b and Art 207.

Art As A Major  
 Graduate degree available (MFA).

The School is staffed by a faculty of artist-teachers, many of whom have national reputations resulting from their participation in major exhibitions and invitational shows throughout the country. The School is accredited by the National Association of Schools of Art. The student can expect to receive training in all of the applied and theoretical branches of visual art. The Rickert-Ziebold Trust Award of \$20,000 is awarded every year to the outstanding graduating senior or seniors from the School of Art.

Transfer students will be able to transfer 36 hours of art from a community college. Work above 36 hours will be evaluated on the basis of a portfolio. Senior institution hours in art will be given transfer credit and evaluated for placement with the School of Art at SIU.

Representative First Job Titles: Art Apprentice, Studio Assistant, Ceramic Sprayer, Archival Worker, Displays Artist, Exhibit Preparator, Archaeological Digging Officer, Manufacturer's Representative, Purchasing Specialist, Pattern & Mod Maker, Arborer, Arboriculturist (Ornamental Hort.), Archaeological Assistant, Ceramics Specialist, Activities Director, Rehab., Painter, Lithographic Artist, Weaving Expert, Museum Curator, Illustrator.

There are many unique features of the automotive technology program. One of the most outstanding features is our ability to meet the vast number of occupational goals of our students. Our graduates have obtained employment as service station owners, service technicians, service advisers and writers, service managers, parts managers, and owners of automobile dealerships. Beyond the associate degree, students may choose to continue their education and obtain a bachelor's degree and thus double their occupational opportunities. Positions are available as manufacturers district service manager, automotive instructor, technical writer, general service manager and training center director, to name a few.

Another unique feature is that SIU's automotive technology program was the first program in Illinois to be certified by meeting the rigid standards of the National Institute for Automotive Service Excellence.

The student is expected to provide his/her tool kit consisting of both domestic and metric tools and supplies. The cost of the tool set is approximately \$400 to \$600.

During the first year, students are required to enroll in a series of core courses which provide them with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians. During the second year students may choose any four of eight possible areas. In most cases, these courses will deal with advanced instruction in areas covered in the core courses.

First Year		Fall	Spring
GE-D 101	English Composition	3	-
GE-D 153	Public Speaking	-	3
AUT 101	Automotive Engines & Fuel Systems Lab	4.5	-
AUT 121	Basic Automotive Engines & Fuel Systems Theory	3	-
AUT 103	Brakes and Chassis Lab	4.5	-
AUT 123	Brakes and Chassis Theory	3	-
AUT 115	Related Shop Lab	2	-
AUT 105	Engine Electrical Lab	-	4.5
AUT 125	Engine Electrical Theory	-	3
AUT 107	Drive Trains Lab	-	4.5
AUT 127	Drive Trains Theory	-	3
STC 105a	Technical Mathematics	-	2
		20	20
Second Year		Fall	Spring
GE-B 202	Introduction to Psychology	-	3
AUT *	Automotive Lab & Theory	15	15
STC 107a,b	Applied Physics	4	-
STC 102	Technical Report Writing	-	2
		19	20

\*200-Level Automotive Courses: With the aid of an advisor and availability of courses, the student must choose four areas of study (two per semester) from the following list of courses.

	Lab	Theory
Automatic Transmissions	AUT 201-4.5	AUT 221-3
Automotive Body and Chassis Electrical	AUT 203-4.5	AUT 223-3
Automotive Air Conditioning	AUT 204-4.5	AUT 224-3
Electronic Fuel and Emission Controls	AUT 205-4.5	AUT 225-3
Brakes and Suspension Systems	AUT 207-4.5	AUT 227-3
Engine Rebuilding	AUT 208-4.5	AUT 228-3
Engine Electronics	AUT 209-4.5	AUT 229-3
Diesel Fuel and Electrical Systems	AUT 210-4.5	AUT 230-3

#### A TWO YEAR ASSOCIATE DEGREE COOPERATIVE PROGRAM AUTOMOTIVE SERVICE EDUCATIONAL PROGRAM

The General Motors Automotive Service Educational Program (ASEP) is a two year technical program designed to provide highly competent automotive service specialists for GM dealerships. The approved curriculum will be delivered in a format and sequence identified and designed by General Motors representatives and the faculty of the automotive technology program at SIU. The program leads to an associate in applied science degree with a major in automotive technology. The program requires student attendance in the classrooms and laboratories of SIU and cooperative work experience in GM dealerships.

The entire program is 24 months with approximately one-half of the time designed for a technical academic background at SIU. The remaining time is allocated for on-the-job experience at sponsoring GM dealerships. Each block of curriculum course areas is followed by an immediate dealership work experience time period which reinforces the academic curriculum. It is essential for the success of the program that academic/laboratory and practical work experience are closely aligned for maximum student learning and retention.

<u>First Year</u>		<u>Credit</u>	<u>Hours</u>	<u>Weeks</u>
AUT 125	Engine Electrical	3	80	4
AUT 229	Engine Electronics	3	80	4
AUT 121	Basic Engines & Fuel Systems	3	80	4
AUT 228	Engine Rebuilding	3	80	4
GE-B 202	Psychology	3	64	
GE-D 101	English Composition	3	48	
AUT 219	Co-Op Work Experience at Dealership	8	480	12
AUT 123	Brake Systems	3	80	4
AUT 227	Steering/Suspension Systems	3	80	4
STC 105a	Technical Mathematics	2	32	
AUT 219	Co-Op Work Experience at Dealership	8	560	14
		42	1664	50

<u>Second Year</u>		<u>Credit</u>	<u>Hours</u>	<u>Weeks</u>
AUT 223	Body & Chassis Electrical Systems	3	80	4
AUT 224	Automotive Air Conditioning Systems	3	80	4
AUT 225	Electronic Fuel & Emission Controls	3	80	4
AUT 230	Automotive Diesel Fuel & Electrical Sys.	3	80	4
STC 107a	Applied Physics	2	32	
STC 107b	Applied Physics	2	32	
GE-D 153	Public Speaking	3	32	
AUT 219	Co-Op Work Experience at Dealership	8	480	12
AUT 127	Drive Train Systems	3	80	4
AUT 221	Automatic Transmission Systems	3	80	4
STC 102	Technical Report Writing	2	32	
		35	1088	36

#### ADVANCED TECHNICAL AUTOMOTIVE STUDIES THROUGH THIRD YEAR SPECIALIZATIONS

Any student who has successfully completed the associate in applied science degree in automotive technology either at SIU, a community college or other accredited post-secondary institution may continue advanced technical automotive studies for a third year specialization. These 300-level (junior year) automotive courses may also be applied toward the bachelor of science degree in career development, provided other degree requirements have been completed. Two specializations are available.

##### Advanced Studies in Automotive Electronics

AUT 301-A	5	Electronic Engine Controls
AUT 301-B	5	Computer Controlled Fuel & Emission Systems
AUT 301-C	5	Body & Chassis Electronics
AUT 301-D	5	Comfort Control Systems

##### Advanced Studies in Automotive Power Trains

AUT 302-A	5	Engine Machining Techniques
AUT 302-B	5	Diesel Fuel Injection Service
AUT 302-C	5	Conventional & Front Wheel Drive Power Trans.
AUT 302-D	5	Uni-body & Front Wheel Suspension & Brake Sys.

Each area of study in these specializations requires twenty clock hours of laboratory per week for eight weeks. Pre-requisite for these specializations is completion of the associate degree program or consent of the program coordinator.

In addition to the third year specialization, students have the option of designing a course of study that meets their specific occupational goals and also earn a bachelor of science degree in career development.

#### BACHELOR OF SCIENCE DEGREE OPTIONS AT SIU

Graduates of associate in applied science program in automotive technology at SIU or other accredited post-secondary institutions have several options in pursuing the bachelor's degree at SIU. These include:

A four year program designed for those interested in management positions in the automotive industry. This is the bachelor of science degree program in career development with an emphasis on automotive management.

A four year teacher training program designed to prepare students as automotive instructors. This is the bachelor of science in occupational education.

Two specialized five year cooperative programs with the Oldsmobile and Buick Divisions of General Motors are designed to develop graduates as district service managers. These programs are also offered under the bachelor of science degree program in career development, but admission requires concurrence of the corporations.



AVIATION FLIGHT  
 School of Technical Careers  
 (Associate in Applied Science)

V. Eugene Biggs  
 Chief Flight Instructor  
 Telephone - 618-529-2681  
 Southern Illinois Airport

The program of flight instruction at SIU is unique, in that it has the flexibility to accommodate any student, whatever his or her academic interest. For many it means taking flight courses as electives within traditional programs such as Business and Administration. An option for the student desiring a degree short of the baccalaureate degree might be the Associate of Applied Science in Aviation Flight. This would enhance their professional value to the aviation industry by providing a balanced program of academic offerings along with flying certificates through Commercial Pilot with Instrument and Multi-Engine ratings and the Certified Flight Instructor-Airplane. Students may desire the combination of flight courses with one of the University's Aviation Technologies programs for an associate degree.

Students who are interested in flying professionally but who are unsure as to which academic program to pursue, may enter the University with an undecided major. This will allow them to immediately start their flight training while working with an advisor toward the selection of a degree program.

Flight training at SIU is conducted by the SIU Air Institute located at the Southern Illinois Airport, approximately three miles from the main campus. Bus transportation to and from the airport is provided by the University. The SIU Air Institute is an FAA 141 approved certificated Pilot School with examining authority, providing comprehensive flight training which includes the most basic certificate (Private Pilot) to the most advanced (Airline Transport Pilot).

Substantial costs are incurred by students pursuing professional aviation. Realistically, students should plan on spending between \$10,000 - \$12,000 in order to obtain the flight qualifications needed for employment. These flight costs are in addition to tuition and fees, room and board, etc.

Students should be encouraged to contact the faculty at the SIU Air Institute or counselors located in New Student Admission Services for more specific information relative to degree options, flight costs and additional training alternatives such as Air Force ROTC and Army ROTC.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 330	Weather	-	3
GE-B 212	Introduction to American Govt. & Politics	3	-
GE-D 101	English Composition	3	-
AF 200	Primary Flight Theory	3	-
AF 201	Primary Flight	2	-
AF 202	Basic & Intermediate Flight Theory	-	2
AF 203	Flight - Basic	-	1
AF 204	Flight - Intermediate	-	1
STC 105a,b	Technical Mathematics	-	4
STC 107a,b	Applied Physics	-	3
Electives		4	-
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 153	Public Speaking	3	-
AF 205	Instrument Flight Theory	2	-
AF 206	Flight - Instrument and Advanced	4	-
AF 207	Flight - Multi-Engine Rating	-	1
AF 300	Flight Instruction Theory	-	3
AF 303	Flight Instruction Airplane	-	2
ATA 101	Aircraft Systems	3	-
ELT 100	Introduction to Electronics	3	-
STC 102	Technical Writing	-	2
AF 260	Reciprocating & Jet Airplane Systems	-	4
Elective		-	3
		<u>18</u>	<u>15</u>

AVIATION MAINTENANCE TECHNOLOGY  
School of Technical Careers  
(Associate in Applied Science)

Larry C. Staples, Coordinator  
Telephone - 618-536-3371  
Southern Illinois Airport

Upon graduation, the student receives the Associate in Applied Science degree, and depending on his or her area of concentration, is qualified to obtain the Federal Aviation Agency (FAA) Airman Airframe and Powerplant certificate as an A & P maintenance technician. Many students combine both the flight and maintenance programs. Students may also take flight classes as electives in this program or any other. (See "Aviation Flight" section for details).

Skilled technicians are in demand in the rapidly-growing aviation industry, both in airlines and general aviation. The industry demands people who possess a wide range of knowledge and ability provided by general education as well as special technical training.

The student studies reciprocating and jet powerplants, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
STC 105a	Technical Mathematics	2	-
AMT 111	Materials Processing	4	-
AMT 112	Aircraft Electricity	4	-
AMT 113	Federal Aviation Regulations	2	-
AMT 114	Aircraft Weight and Balance	2	-
AMT 116	Aircraft Instruments	-	3
AMT 201	Applied Science	2	-
AMT 203	Aerodynamics	-	2
AMT 204	Aircraft Hydraulics	-	4
AMT 205	Cabin Environment & Jet Transport Systems	-	6
AMT 206	Metals Processing	-	3
		<u>19</u>	<u>20</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Science Elective	-	2
GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
GE-D 152	Interpersonal Communication	3	-
AMT 110	Aircraft Structures	4	-
AMT 210	Aircraft Electrical Systems	2	-
AMT 211	Reciprocating Powerplant	5	-
AMT 212	Carburetion, Lubrication	5	-
AMT 213	Ignition Systems	-	5
AMT 214	Propellers	-	3
AMT 215	Powerplant Testing	-	5
AMT 216	Jet Propulsion Powerplant	-	6
		<u>22</u>	<u>21</u>
		<u>Summer*</u>	
AT 225	Aircraft Inspections	6	
AT 230	Powerplant Inspections	6	
		<u>12</u>	

\*A minimum of 81 hours satisfies requirements for the associate degree; students who wish to qualify for the FAA A & P licenses are required to take an additional eight weeks of summer school.

<sup>1</sup>Recommended, not required.

Aviation Maintenance Technology As A Major

Aviation maintenance technology facilities are located at the Southern Illinois Airport, three miles NNW of the Carbondale campus and three miles ENE of Murphysboro, Illinois.

Students entering the aviation maintenance technology program for the first time must purchase a basic tool kit and special study materials costing approximately \$360.

The Aviation Maintenance Technology Department is acclaimed by many branches of the aviation industry and government agencies as the best school in the nation. It prepares students on animated training panels representing the modern jet transports such as: Boeing 707, 727, 747 and Douglas DC8, DC9, and DC10 aircraft.

Students may join various student organizations such as Alpha Eta Rho International Aviation Fraternity, the Rotary Wing Association of America, a flying club, an avionics club and even a radio control model airplane club. Members of these organizations often sponsor events like fly-ins, air shows, and field trips to sites of aviation activities.

Executives in the aviation industry constitute an advisory committee which serves the program.

Representative First Job Titles: A&P Mechanic, Maintenance Technician.

AVIATION MANAGEMENT  
School of Technical Careers  
(Bachelor of Science)

David A. NewMyer, Coordinator  
Division of Advanced Technical Studies  
Telephone - 618-536-6682  
STC Building, Room 126

The Division of Advanced Technical Studies (ATS) in the School of Technical Careers offers a bachelor of science in aviation management. The aviation management major is designed to build upon technical training and experience in aviation maintenance, flight, avionics technology air traffic control, aircraft operations support or other aviation related fields.

The program of study for the aviation management major combines SIU general education requirements, program major requirements, approved major electives, and ATS core courses in a comprehensive and flexible curriculum. The 45 hour general education requirement may be satisfied by completing courses at any accredited college or university, credit received through CLEP, USAFI, DANTES or proficiency examinations. Students who have completed an A.A.S. degree may be eligible for the Capstone option. This option reduces the hours required in general education from 45 to 30.

First Year

GE-A	Science (select)	3	3
GE-B	Social Science (select)	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health & Well Being (select)	2	-
Electives	Technical Specialization	7	5
		<u>18</u>	<u>17</u>

Second Year

GE-A	Science (select)	3	-
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 118	Technical Report Writing	-	2
GE-D 152	Interpersonal Communication or		
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
Electives or	Technical Specialization	9	8
		<u>18</u>	<u>18</u>

\*GE Total = 45 hours. See advisor to determine eligibility for Capstone option.

Third and Fourth Years

ATS core courses - 12 hours required.

ATS 364	Work Center Management	3
ATC 416	Applications of Technical Information	3

Two of the following:

ATS 332	Labor Management Problems	3
ATS 383	Data Interpretation	3
ATS 421	Professional Development	3
		<u>12</u>

Aviation Management Specialization Requirements

15 hours required

ATS 370	Airport Planning	3
ATS 371	Aviation Industrial Regulations	3
ATS 372	Airport Management	3
ATS 373	Airline Management	3
ATS 374	General Aviation Operations	3
ATS 375	Legal Aspects of Aviation	3
ATS 376	Aviation Maintenance Management	3
ATS 377	Aviation Safety Management	3
ATS 378	National Airspace System	3
ATS 386	Fiscal Aspects of Aviation Mgmt.	3
ATS 401	Current Issues in Aviation Mgmt.	3
		<u>15</u>

Aviation Management Specialization electives - 9 hours required.  
(Must be approved by advisor).

Internship, Independent Study, or approved equivalent-12 hours required.

Approved career electives - 27 hours

TOTAL: 120 hours



Avionics, or aircraft electronics, is a rapidly growing field requiring highly skilled technicians for work in the development, installation, and maintenance of the sophisticated avionics systems required for effective utilization of modern day aircraft by the aviation industry. The avionics technician finds opportunities for employment with the airline industry, general aviation, and in aircraft manufacturing, where employees will install, maintain, test and repair airborne communications and navigation systems, airborne radar systems, and related equipment.

All instruction is programmed in a balanced combination of classroom lecture and actual "hands on" laboratory experience under the supervision of instructors who have extensive experience and expertise in their respective fields.

The student will have courses in basic direct current, alternating current, electrical power systems, airborne, auxiliary power systems, electrical generation and distribution, load transfer, solid state devices, aircraft communications and navigation systems, instrumentation systems, and aircraft integrated flight systems, receivers, and transceiver, pulse and microwave systems, antenna types, wave propagation and transmission lines, and Federal Aviation Administration and Federal Communication Commission regulations.

In addition to regular University tuition and fees, the student is required to purchase basic tool kits and study materials at an approximate cost of \$300.

<u>First Semester</u>		<u>CR.</u>	<u>LEC.</u>	<u>LAB</u>
ATA 120	Avionics Circuit Analysis	8	8	0
ATA 125	Avionics Laboratory I	5	0	10
ATA 101	Avionics Systems	3	3	0
STC 105a,b	Technical Mathematics	4	4	0
TOTALS		20	15	10

<u>Second Semester</u>				
ATA 232	Avionics Electronic Circuits	10	5	10
ATA 210	Aircraft Electrical Systems	2	1	3
GED 152	Interpersonal Communications	3	3	0
GED 101	English Composition	3	3	0
TOTALS		18	12	13

<u>Third Semester</u>				
ATA 203	Avionics Shop Practices	3	3	0
ATA 204	Avionics Shop Lab	3	0	6
ATA 235	Flight System Theory	6	6	0
ATA 236	Avionics Laboratory	5	0	10
GED 118	Technical Report Writing	2	2	0
TOTALS		19	11	16

<u>Fourth Semester</u>				
ATA 233	Aircraft Communications & Navigation System Theory	5	5	0
ATA 234	Avionics Laboratory	6	0	12
ATA 237	Avionics Logic Circuits & Pulse System Theory	5	5	0
ATA 238	Avionics Laboratory	5	0	10
TOTALS		21	10	22

<u>Post Associate Courses*</u>				
ATA 302	Avionics Laboratory	3	-	-
ATA 303	FCC Regulations	2	-	-
ATA 304	Avionics Radar System Theory	4	-	-
ATA 350	Microcomputers for Aviation Professionals	4	-	-
ATA 360	Avionics Data Bussing & Elt. Flt. Instr. Sys.	5	-	-
ATA 365	Avionics Data Bussing & Elt. Flt. Laboratory	4	-	-
ATA 370	Reliability, Maintainability, Fault Prediction and Analysis	5	-	-

\*To meet federal and industry requirements, the student should plan to take these additional courses offered as a post-associate specialty.

A minimum of 78 hours credit is required for the associate degree.

Representative First Job Titles: Line Avionic Repairperson, Shop Repairperson, Maintenance Foreman, Company Representative.

BIOLOGICAL SCIENCE<sup>1</sup>  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

This curriculum is designed to give the student a broad, yet intensive, education in the biological sciences preparatory for various professions, especially the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges.

The biological sciences curriculum consists of courses selected from General Education Area A and the Departments of Botany, Microbiology, Physiology, and Zoology. A student selecting biological sciences as his or her concentration does not need to take a secondary concentration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
ZOOL 220a,b	Diversity of Animal Life	4	4
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing (select) <sup>2</sup>	-	2
BOT 200	General Botany and Lab <sup>3</sup>	-	4
MATH 111	Pre-Calculus <sup>3,4</sup>	5	-
GE-D 153	Public Speaking	3	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 212 or 301	American Government or U.S. History	3	-
GE-C	English elective in Humanities	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-E	Activity	-	2
GE-E 201	Healthful Living	2	-
BOT 204	Plant Diversity and Lab	-	4
CHEM 222a,b	Introduction to Chemical Principles & Lab <sup>3</sup>	4	4
GE-B 202	Introduction to Psychology	-	3
PHSL 210	Introductory Human Physiology <sup>3</sup>	-	4
		<u>15</u>	<u>15</u>

<sup>1</sup>See also the program under the College of Science.

<sup>2</sup>Refer to the section General Education for the Transfer Student.

<sup>3</sup>Approved substitutes for General Education.

<sup>4</sup>Or, Mathematics 108 and 109, or 140, or 141.

Biological Science As A Major

Foreign Language is not required for students pursuing the Bachelor of Science in Education degree.

For specific major requirements see the Undergraduate Catalog.

Courses required for teacher certification include: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics OR GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118 or 119, Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; one additional English course (GE-C, GE-D, or departmental).

Biology has long been known as the "Queen of the Sciences." This title emphasizes its breadth and interdisciplinary nature. To solve the problems of biology requires study in a number of subject matter areas. The biology curriculum is designed to give the student a broad, yet intensive education preparatory for various professions as well as the teaching of biology at the secondary level. The work may be taken in either the College of Science or the College of Education. The science requirement for this concentration is the same in both colleges. The curriculum consists of course selected from the Departments of Botany, Microbiology, Physiology, and Zoology.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Expository, Technical Report, or Creative Writing	-	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	1
*FL	Foreign Language <sup>4</sup>	4	4
*MATH 108, 109 ZOO 220a, b	College Algebra and Trigonometry <sup>3,4</sup> Diversity of Animal Life (Invertebrate, Vertebrate)	3 4	3 4
		<u>17</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	6	-
GE-C	Humanities (select) <sup>2</sup>	-	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being <sup>2</sup>	-	3
*BOT 200	General Botany and Lab <sup>4</sup>	4	-
*BOT 204	Plant Diversity and Lab <sup>4</sup>	-	4
*CHEM 222a, b PHSL 210	Introduction to Chemical Principles <sup>4</sup> Introductory Human Physiology <sup>4</sup>	4 -	4 5
		<u>17</u>	<u>18</u>

#### Third and Fourth Year

The last two years of a student's program should include completion of 3 additional hours in GE-A, GE-B, or GE-C, and the following courses in biological sciences: Microbiology 301, 302 (7 hours), any two of Biology 305, Biology 306, Biology 307, Biology 308, or Biology 309 (6 hours), and any electives in biological sciences at the 400-level, for 6 hours.

\*Approved substitutes for General Education.

<sup>1</sup>See also the program (B.S.) under the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup>Math 111 substitutes for Math 108, 109.

<sup>4</sup>Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

#### Biological Sciences As A Major (No minor required)

The increasing complexity of the world and the nature of its problems emphasize the importance of the study in biology. The problems of the world that are most forcibly felt are biological--population increase, nutrition, food production, energy supplies, medicine, sanitation, waste disposal, toxicities, and a host of others. Although advanced work (M.A. or Ph.D.) has become a basis for professional preparation in the biological sciences, many technician positions exist in industry for people who cannot immediately pursue graduate study or who do not care to do so.

Representative First Job Titles: Venereal Disease Investigator, Aide-Veterinary Clinic, Pharmaceutical Sales, Fishery Bacteriologist, Quality Control Specialist, Medical Laboratory Assistant, Medical Bacteriologist, Researcher-Chiropractic College, Nutrition Specialist, Plant Protection Scientist, Technical Marketing Representative, Research Technician, Technical Library Operator, Biological Warfare Officer, Technical Sales, Soil Conservation Technician, Soil Bacteriologist, Commodities Inspector, Food and Drug Inspector, Bio-Specimen Technician, Aquatic Biologist, Wildlife Biologist, Environmental Analyst, Fish and Wildlife Game Warden.



## BOTANY<sup>1</sup>

College of Science  
(Bachelor of Science)

Dr. John Voigt, Department Advisor  
Telephone - 618-536-2331  
Life Science II, Room 479

Botany is a broad science that includes many specialities. For example, a person who has a quantitative turn of mind and enjoys mathematics or chemistry might find genetics or biochemistry exciting, whereas a person who has always enjoyed outdoor activity might be attracted to systematic botany or ecology. Plant Morphology might appeal to a person who enjoys observation and interpretation, but plant physiology might have more appeal for a person who prefers experimentation. The exact courses that should be selected by a student who wishes to prepare for a career in botany or for graduate study will vary somewhat depending upon the area of plant science in which he or she intends to specialize.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	1
*FL	Foreign Language <sup>3</sup>	4	4
*BOT 200	General Botany and Lab <sup>3</sup>	4	-
BOT 204	Plant Diversity and Lab <sup>3</sup>	-	4
*MATH 108, 109	College Algebra and Trigonometry <sup>3</sup>	3	3
		<u>17</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	6	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 152	Interpersonal Communication	3	-
GE-E	Human Health and Well Being <sup>2</sup>	1	2
*BIOLOGY 306	Cellular Biology	-	3
BOTANY	Elective	-	4
BOTANY 304	Plant Classification	3	-
*CHEM 222a,b	Introduction to Chemical Principles <sup>3</sup>	4	4
		<u>17</u>	<u>15 (16)</u>

\*Approved substitutes for General Education.

<sup>1</sup> See also the program under the College of Education (Bachelor of Science).

<sup>2</sup> To determine what courses may be taken to satisfy this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup> Students in the College of Science must take one year of foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

### Third and Fourth Year

The last two years of a student's program should include completion of three additional hours in GE-A, GE-B, or GE-C, Biology 305, Biology 307, and the following courses in botany: Botany 320, 337 and botany electives totaling 16 hours, distributed so as to include at least one course from each of the following groups:

- Group A. 400, 404, 405, 406, 411, 412, 413, 414, 421
- Group B. 409, 410, 430, 439, 449, 450, 451, 485
- Group C. 440, 443, 444, 448
- Group D. 425a, 425b

### Botany As A Major

As a general rule, a student who intends to apply for admission to a graduate school for study for an advanced degree in botany should include the following in his or her undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in botany courses of 3.25 or better. The honors student should enroll in Botany 492 during some semester of both junior and senior years for a total of no fewer than three semester hours.

Representative First Job Titles: Agricultural Sales, Biological Product Development Scientist, Botanist, Ecologist, Economic Botanist, Horticulture Technician, Plant Breeding Technician, Plant Ecologist, Plant Morphologist, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Plant Protection Technician, Quality Control Specialist, Technical Library Operator, Museum Curator, Biotechnologist, Industrial Bacteriologist, Naturalist, Conservationist, Agricultural Commodities Inspector, Researcher, Teacher, Cystologist.

BUSINESS AND ADMINISTRATION  
College of Business and Administration  
(Bachelor of Science)

Dr. Larry Chapman, Director of  
Student Affairs  
Telephone - 618-453-5250  
Henry J. Rehn Hall, Room 113

The Bachelor of Science degree program with a major in Business and Administration is intended for those students with personal and professional goals which entail a blending of course work offered by the College of Business and Administration with a secondary concentration comprised of 20-23 semester hours of course work offered by other schools and colleges of the University. This combining of interests--business with an outside field--can result in a unique program. For example, a student with international business interests can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field (or secondary concentration) must be consistent with a specific career objective or personal development plan and at least 15 semester hours must be structured to achieve this objective. Individual programs are subject to the approval of the Dean of the College of Business and Administration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-E-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well Being (select) <sup>1</sup>	3 (2)	-
GE-C	Humanities (select) <sup>1</sup>	-	3
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications <sup>2</sup>	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or	Finite Mathematics and Algebra or		
139-3	Finite Mathematics	3 (5)	-
		15 (16)	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C	General Education Electives	-	3
*ACCT 220, 230	Financial, Managerial Accounting	3	3
*CS 212 or	Intro. to Computer Programming (Pascal) or		
EDP 217	Computing for Business Admin. (Fortran)	-	3
*MATH 117-5 or	Finite Mathematics and Calculus or Short		
140-4	Course in Calculus	4 (5)	-
*ECON 214, 215	Economics, Macro and Micro <sup>3</sup>	3	3
		16	15

\*Required courses for a major in Business and Administration.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>MGT 202 substitutes for GE-D 118.

<sup>3</sup>ECON 214 or 215 counts toward GE-B credit.

Business And Administration As A Major

Secondary concentration required; foreign language not required.

Graduate degrees available: MBA, Masters in Accountancy (M.Acc.), DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

See College of Business and Administration listing for their retention policy and the 40% rule.

BUSINESS ECONOMICS

College of Business  
(Bachelor of Science)

Dr. Iqbal Mathur  
Chairperson, Dept. of Finance  
Telephone - 618-453-2450  
Henry J. Rehn Hall, Rm 120

The Business Economics major offered through the College of Business and Administration emphasizes the application of economic concepts and the use of critical analysis in the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master in Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of post graduate study.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well-Being (select) <sup>1</sup>	3 (2)	-
GE-C	Humanities (select) <sup>1</sup>	-	3
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications <sup>2</sup>	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or	Finite Mathematics and Algebra or		
139-3	Finite Mathematics	3 (5)	-
		14-16	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C	General Education Electives	-	3
*ACCT 220, 230	Financial, Managerial Accounting	3	3
*CS 212 or	Intro to Computer Programming (Pascal) or		
EDP 217	Computing for Business Admin. (Fortran)	-	3
*ECON 214, 215	Economics, Macro and Micro <sup>2</sup>	3	3
MATH 117-5 or	Finite Mathematics & Calculus or Short		
140-4	Course in Calculus	4 (5)	-
		14-16	15

\*Required course for a major in Business Economics

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>MGT 202 substitutes for GE-D 118.

<sup>3</sup>ECON 214 or 215 count toward GE-B credit.

Business Economics As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy (M.Acc.), DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB). See College of Business and Administration listing for their retention policy and the 40% rule.

Representative First Job Titles: Account Executive, Business & Economics Statistician, Business Planning Officer, Economic Analyst, Economic Forecaster, Investment Analyst, New Business Researcher, Organization Planning Officer, Systems Evaluator, Marketing Representative, Operating Plans and Procedures Officer, Operations Research Analyst, Labor Economist, Labor Relations Officer, Workman's Compensation Officer, Benefits Analyst, Industrial Economist, Industrial Labor Relations Specialization Off., Business Analyst, Loan Administrator, Loan Examiner.



BUSINESS EDUCATION  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Heidi Perreault  
Coordinator of Program Area  
Telephone - 618-453-3321  
General Classrooms Building, Room 133

Students admitted to the Undergraduate Teacher Education program in Business Education may select one of the following teaching areas: office education, accounting, data processing, general business/consumer education, and marketing. Two supplemental areas are also required.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being	2	-
VES 310	Introduction to Business Education	-	2
GE	Electives	2	2
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 211	Contemporary Economics	3	-
GE-B 212 or 301	American Government or History of U.S.	-	3
GE-C	English Elective in Humanities (select) <sup>1</sup>	3	-
GE-E 201	Healthful Living	2	-
SCR 101a	Keyboarding	3	-
VES 302	Communication in Business	-	3
ACT 220	Accounting I	3	-
VES 306	Introduction to Data Processing	-	3
GE	Electives	-	4
		<u>17</u>	<u>16</u>

<sup>1</sup> Refer to the section General Education for the Transfer Student.

Business Education As A Major

Students should include the following courses required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 211, Contemporary Economics; GE-B 212, Introduction to American Government and Politics, or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 118, Technical Writing; GE-D 153, Public Speaking; GE-E 100-114, 2 hours, Physical Education Activities; GE-E 201, Healthful Living; one additional English course (GE-C, GE-D, or departmental).

Major Core Requirements: Accounting 220, Economics 214 or GE-B 211 (see above), Marketing 304, Secretarial and Office Specialties 101 a and b, Vocational Education Studies 210, 302, and 306.

BUSINESS EDUCATION

(Non-Certification Business Occupations  
Teaching)  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Heidi Perreault  
Coordinator of Program Area  
Telephone - 618-453-3321  
General Classrooms Building, Room 133

This Business Education program provides students with the background to enter careers in these areas: (1) teaching the occupation in community colleges, private schools, or government sponsored educational program; (2) employment in the occupation; (3) employment in education or training divisions within a business.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 202	Introduction to Psychology	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-C 208	Elementary Logic	3	-
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
ACCT 220	Financial Accounting	-	<u>3</u>
		15	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 211	Contemporary Economics	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-E	Human Health and Well Being	-	2
ACCT 230	Managerial Accounting	-	3
SCR 101A	Keyboarding	3	-
GE-	Electives	6	<u>4</u>
		15	15

<sup>1</sup> Refer to the section General Education for the Transfer Student.

Business Education (Non-Certification Business Occupations Teaching) As A Major

The student is required to complete 53 semester hours in a combination of general courses in business and in courses in one of these business concentrations: (1) office; (2) accounting; (3) data processing; (4) marketing; (5) management. Work experience credit will be accepted in lieu of any of the business courses. Education requirements involve 22 semester hours in such course work as planning cooperative programs, working with adults, and specific methodology in teaching the business occupation.

CAREER DEVELOPMENT  
School of Technical Careers  
(Bachelor of Science)

Dr. Elaine Alden, Coordinator  
Division of Advanced Technical Studies  
Telephone - 618-536-6682  
STC Building, Room 126

The Division of Advanced Technical Studies (ATS) in the School of Technical Careers offers a bachelor of science in career development. The career development major is a flexible, individually designed program of study for students with a broad range of technical training, interests, and experience. The program is ideally suited for community college and technical institute graduates holding occupationally-oriented associate degrees in fields such as automotive technology, communication graphics, construction technology, electronic data processing, photographic technology, secretarial services, and tool and manufacturing technology.

The career development major focuses upon managerial and supervisory skills for the technical professions. Career development graduates put these skills to work in such fields as construction, automotive, data processing, office management, architectural drafting/design, advertising, and small business operations.

The bachelor of science degree in career development builds upon student's previous technical training through a combination of ATS core courses, major requirements, approved major electives and SIU general education requirements.

The 45 hour general education requirement may be satisfied by completing courses at any accredited college or university, credit received through CLEP, USAFI, DANTES or through proficiency examinations. Students who have completed an A.A.S. degree may be eligible for the Capstone option. This option reduces the hours required in general education from 45 to 30. Students may also receive credit for previous educational, military and occupational experience. Credit is established by departmental evaluation. In addition, field internships and independent study opportunities are available upon approval by the student's faculty advisor.

First Year

GE-A	Science (select)	3	3
GE-B	Social Science (select)	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health & Well Being (select) <sup>1</sup>	2	-
Electives or	Technical Specialization	7	5
		18	17

Second Year

GE-A	Science (select)	3	-
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 118	Technical Report Writing	-	2
GE-D 152	Interpersonal Communication or		
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
Electives or	Technical Specialization	9	8
		18	18

\*GE Total = 45 hours. See advisor to determine eligibility for Capstone option.

Third and Fourth Years

ATS core courses - 12 hours required.

ATS 364	Work Center Management	3
ATC 416	Applications of Technical Information	3

Two of the following:

ATS 332	Labor Management Problems	3
ATS 383	Data Interpretation	3
ATS 421	Professional Development	3
		12

Career Development Specialization Requirements - 24 hours

Must include at least 15 hours of 300-400 level coursework. Individually designed with student's faculty advisor.

Internship, Independent Study, or approved equivalent - 12 hours required.

Approved career electives - 27 hours

TOTAL: 120 hours

Representative First Job Titles: Automotive Sales and Services Representative, Construction Foreman, Graphic Artist.



**CHEMISTRY<sup>1</sup>**  
 College of Education  
 (Bachelor of Science)

M. Frances Giles, Coordinator  
 Teacher Education Services  
 Telephone - 618-453-2354  
 Wham Building, Room 135

The Department of Chemistry and Biochemistry has a long and distinguished record for its programs at the undergraduate level. These courses are designed to give thorough training in theory and practice. Three undergraduate degrees are offered allowing a student to select a program best suited to his/her future goals.

The Bachelor of Science degree in Education is administered by the College of Education. It is provided for those who wish to become secondary school chemistry teachers.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 212 or 301	American Government or U.S. History <sup>2</sup>	-	3
GE-C	Humanities (select)	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing (select) <sup>2</sup>	-	2
GE-E 201	Healthful Living	-	2
GE-E	P.E. Activity	-	2
CHEM 222a,b	Introduction to Chemical Principles <sup>3</sup>	4	4
MATH 111	Pre-Calculus <sup>3</sup>	5	-
		<u>15</u>	<u>13</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-B 202	Introduction to Psychology	3	-
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-C	English elective in Humanities (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 153	Public Speaking	-	3
CHEM 226	Introduction to Quantitative Chemical Principles	5	-
PHYSICS 203	College Physics	-	3
MATH 150	Calculus I	4	-
		<u>15</u>	<u>15</u>

<sup>1</sup>See also the program under College of Science.

<sup>2</sup>Refer to the section General Studies for the Transfer Student.

<sup>3</sup>Approved substitutes for General Education

For specific major requirements see the Undergraduate Catalog.

Chemistry As A Major

The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics OR GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, 119, Expository, Technical, or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; one additional English course (GE-C, GE-D, or departmental).

**CHEMISTRY<sup>1</sup>**  
College of Science  
(Bachelor of Arts)  
(Bachelor of Science)

Dr. James Tyrrell,  
Department Executive Officer  
Telephone - 618-453-5721  
Neckers Building, Room 224

The Department of Chemistry and Biochemistry has a long and distinguished record for its programs at the undergraduate level. These courses are designed to give thorough training in theory and practice. Three undergraduate degrees are offered allowing a student to select a program best suited to his or her future goals.

The Bachelor of Science degree from the College of Science is for those who will prepare for graduate school or who plan to be professional chemists. Those completing this degree meet the certification requirements of the American Chemical Society.

The Bachelor of Arts degree, also from the College of Science, offers the student greater choice in selecting his or her program. One option gives the student the minimum preparation for graduate work in Chemistry or Biochemistry; another prepares for medicine, dentistry and other health sciences. A third option in administration is also offered. Co-sponsored by the College of Science and Business and Administration, this option prepares chemistry students for careers in management, marketing, and production rather than research and development.

First Year		Fall	Spring
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-D 153	Public Speaking	3	-
BIOL	Biological Sciences (not GE-A) <sup>2</sup>	3	3
*CHEM 222a,b	Introduction to Chemical Principles	4	4
GE-C	Humanities (select) <sup>3</sup>	-	3
MATH 111	Pre-Calculus <sup>2</sup>	5	-
MATH 150	Analytic Geometry and Calculus <sup>2</sup>	-	4
		18	16
Second Year		Fall	Spring
GE-B	Social Sciences (select) <sup>3</sup>	3	-
CHEM 226a,b	Intro to Quantitative Chemistry Principles	3	2
CHEM 344	Organic Chemistry	4	-
CHEM 345	Laboratory Techniques	2	-
CHEM 346	Organic Chemistry	-	2
CHEM 349	Laboratory Technique	-	3
MATH 250	Calculus II	-	3
*FL	(German Recommended) <sup>2</sup>	4	4
		16	14

\*Approved substitutes for General Education.

<sup>1</sup> See also program under College of Education.

<sup>2</sup> Students in the College of Science must take one year of foreign language, one year of math, six semester hours of physical sciences, and six semester hours of biological sciences. German, French or Russian are recommended if language requirement is not previously satisfied.

<sup>3</sup> Refer to section General Education for the Transfer Student.

### Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives, and on fulfilling remaining General Education requirements. The B.S. in the College of Science requires a year of calculus based physical chemistry, a course in instrumental analysis and advanced courses from biochemistry, inorganic chemistry, organic chemistry or physical chemistry. The B.A. degree is somewhat less demanding and the available options allow a program to be tailored to the needs of the individual.

### Chemistry As A Major

Our Faculty consists of 25 Ph.D.'s; our building is quite new, and our teaching equipment is modern. We take pride in the quality of professional training that is available to our students. Those who are interested in careers in research or college teaching will continue their education in an appropriate graduate school. Others may enter professional schools or select immediate employment in the industry. The chemist typically finds work in private or government laboratories, and his or her activities may be in research and development, sales, or analysis and control of manufacturing processes.

**Representative First Job Titles:** Research-Pharmaceutical, Biochemist, Biochemical Technologist, Research Chemist, Quality Control Chemist, Analytical Chemist, Organic Chemist, Inorganic Chemist, Physical Chemist, Food Chemist, Soil Chemist, Agricultural Chemist, Paint Chemist, Chemical Laboratory Technologist, Dye Chemist, Geochemist, Manufacturer's Representative, Nuclear Chemist, Product Studies and Testing Chemist, Textile Chemist, Water Purification Chemist, Environmental Analyst, Toxicologist, Pollution Control Chemist.

The visual and aural world of still and moving images: this is the world of Cinema and Photography. From the history, theory, and appreciation of past work in motion pictures and still photography; students move into the challenges of using still and moving images to document, to express, and to communicate the artistic perspective that these media of light and shadow make dramatic. The curriculum in Cinema and Photography is structured to allow both professional and fine arts applications of these exciting approaches to visualization, allowing preparation also for educational careers in film and photography along with an exploration of the social implications of still and moving images. In each instance, students may tailor the program to meet particular interests and career plans.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 117, 118			
or 119	Writing (select) <sup>1</sup>	-	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
		<u>14</u>	<u>13</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE Elective	From A, B or C (select) <sup>1</sup>	3	-
*C&P 310 or 360	History of Still Photography or Film Analysis	3	-
*C&P 311 or 368	Contemporary Photography or Intro to Cinema Theory	-	3
*C&P 320 or 355	Basic Photography or Film Production I	4	-
*C&P 322 or 356	Color Photography or Film Production II	-	4
		<u>16</u>	<u>16</u>

<sup>1</sup>Refer to section General Education for the Transfer Student.

\*Requirements for Cinema and Photography major.

#### Cinema And Photography As A Major

This department is recognized by national photographic organizations as one of the leading departments in the country.

A grade of 'C' is required in prerequisite courses and a 2.0 average must be maintained in cinema and photography courses in order to remain in the major.

No minor required. No foreign language required. The Master of Fine Arts degree in Cinema and Photography is also available.

Students must successfully complete the core requirements, and portfolios and/or films must be submitted for entrance into certain courses.

Students purchase supplies for many cinema and photography courses. In courses which involve analysis and screening of a number of films, a screening fee is assessed. Lab fees may be required for certain other courses.

Only transfer credit of an exceptional nature has been accepted to fulfill the major requirements in Cinema and Photography.

The University reserves the right to retain examples of the work of each student in each photography class and to make and retain prints of all films made as part of course work. Such photographs and films become part of a permanent departmental collection from which exhibitions may be prepared.

Representative First Job Titles: Studio Assistant, Illustrator, Cameraperson, Painting & Publication Officer, Visual Information Specialist, Color Technician, Developer, Printer, Retoucher, Sales Manager, Photochecker & Assembler, Chemical Mixer, Advertising Agent, Newsfilm Editor, Film Industry Business Assistant, Film Production Staff, Film Planner, Free Lance Photographer, Documentary Film Specialist, Quality Control Officer, Film Stripper, Photographer, Multi-Media Specialist.



See also: electrical engineering, engineering: engineering mechanics option, engineering: thermal and environmental option, mechanical engineering, and mining engineering.

Civil engineering is a profession in which principles of the mathematical, physical, and engineering sciences, combined with experience and practice, are used to develop safe and economical designs for buildings, bridges, dams and hydraulic systems, environmental engineering systems, and other beneficial projects. Civil engineering is one of the oldest branches of the engineering field and is often called a "people-serving" profession.

The four-year undergraduate program leading to the Bachelor of Science degree in civil engineering has four areas of specialization: structural engineering, hydraulic engineering, environmental engineering, and applied mechanics. Additional technical electives enable students to concentrate on specialty areas that support their career goals.

First Year		Fall	Spring
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1</sup>	2	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		17	17
Second Year		Fall	Spring
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics)	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics <sup>3</sup>	3	3
		16	15

<sup>1</sup>See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup>Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup>Substitutes for General Education requirements.

To remain in the College, students are subject to the requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the college's Retention Policy.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

#### Career and Employment Opportunities

Civil engineers are in demand in many fields. The number and variety of employment opportunities allow graduates considerable flexibility in job selection. Positions exist in construction companies, consulting engineering and architectural firms, transportation, public utility and manufacturing companies, aerospace companies, and governmental agencies on every level.

## CLASSICS

College of Liberal Arts  
(Bachelor of Arts)

Dr. Helmut Liedloff - Chairperson  
Telephone - 618-536-5571  
Faner Building, Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish. There is also a special major in East Asian Studies leading to the Bachelor of Arts degree in the College of Liberal Arts for students who have a professional or occupational interest in Asia. Students wishing to work towards this major are encouraged to take an Asian language.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has taken two years of one foreign language in high school (or equivalent) has the option to earn proficiency credit through taking a proficiency exam in French, German, Latin, Spanish at the Testing Center, or in Chinese, Greek, Japanese, Russian at the Foreign Languages and Literatures Department. For additional credit, students with more than two years are encouraged to take a validating course. Students with four years in one foreign language at the high school level are encouraged to continue with that language. Since proficiency credit of up to 16 hours is available, such students are in an advantageous position to complete a double major.

First Year		Fall	Spring
GE-A	Science (select)	-	3
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select)	3	2
CLAS 133a,b or CLAS 130a,b or CLAS 202a,b or	Elementary Latin <sup>1,2</sup> or Greek <sup>1,2</sup>	4	4
CLAS 201a,b	Intermediate Latin <sup>1,2</sup> or Greek <sup>1,2</sup>	(3)	(3)
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select)	2	-
		14	14
Second Year		Fall	Spring
GE-A	Science (select)	3	3
GE-B	Social Science (select)	-	3
MATH or CS	Mathematics or Computer Science <sup>3</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
CLAS	Classics Electives <sup>4</sup>	3	3
GE-E	Human Health and Well Being (select)	-	2
CLAS	Latin or Greek Language	3	3
		15	14

<sup>1</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>2</sup>Required by the major--two years of one language or one year of each.

<sup>3</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later. Students with more than one year of high school Latin or Greek should carry at least one substantial course in the classics major each semester.

<sup>4</sup>Required by the major.

### Classics As A Major

A major in Classics consists of 36 semester hours in courses on all levels. Electives may be chosen from specified courses in the departments of Anthropology, Art, History, Philosophy, Political Science, and Religious Studies. A minor in Classics consists of 15 semester hours.

NOTES: Foreign Language majors must satisfy College of Liberal Arts requirements. Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU.

Representative First Job Titles: Translator, Simultaneous Interpreter, Consecutive Interpreter, Visitors' Guide, Communications Specialist, Public Information Officer, Escort Interpreter, Conference Interpreter, International Relations Officer, Sales Representative, Writer, Editor, Publications Staff, Speech Writer, Archaeological Worker, Archival Worker, Museum Curator, Cultural Studies Specialist, Researcher, Exhibit Preparator.

## CLOTHING AND TEXTILES

(Apparel Design)

Department of Vocational Education Studies

College of Education

(Bachelor of Science)

M. Frances Giles, Coordinator

Teacher Education Services

Telephone - 618-453-2354

Wham Building, Room 135

Dr. Wayne L. St. John

Coordinator

Telephone - 618-453-3321

Quigley Hall, Room 311

The apparel design program in the Division of Comprehensive Planning and Design gives students training for design occupations either in an industrial setting or in a custom shop. Many careers in design-related businesses are also available to the graduates of this program. The variety of courses offered is outstanding which provides the student with opportunity to develop individual skills and competencies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115, 117 or 118	Biological Science	3	-
GE-A 106	Chemistry for Non-Science Majors	-	3
GE-B 211	Contemporary Economics	-	3
GE-C	Humanities (select philosophy or literature)	-	3
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E 107, 201 or 236	Human Health and Well Being (select)	-	2
ART 100a <sup>1</sup>	Two Dimensional Design	-	3
VES 336	Survey of Clothing	3	-
VES 338	Clothing Construction	3	-
GE-B	Electives	3	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-C 205	Innovation for the Contemporary Environment	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select activity)	-	2
ART 110	Introduction to Drawing I	3	-
ART 206	Beginning Fibers	-	3
VES 337	Clothing for Consumers	3	-
VES 345	Textiles	-	4
VES 347	Fashion Motivation	3	-
		<u>15</u>	<u>15</u>

<sup>1</sup> ART 100a will substitute for GEC 101. Apparel design students must take ART 100a.

### Third and Fourth Years

If not completed at the junior college level, Chemistry and VES 338 (Clothing Construction) must be taken the first semester the transfer student is at SIU. Other courses taken during the last two years will include the professional apparel design courses within the department and electives.

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in clothing and textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

Representative First Job Titles: Family Expenditures Education Specialist, Consumer Market Analyst, Consumer Relations Officer, Apparel Designer, Fashion Coordinator, Patterns Designer, Tailor, Clothing Economist, Fashion Merchandising Expert, Advertising Assistant, Retail Store Manager, Cost Analyst, Customer Services Specialist, Sales Agent, Purchasing Manager, Marketing Specialist, Textile Selector, Textile Laboratory Assistant, Customer Relations Specialist, Pattern Maker, Industrial Relations Specialist, Price Economist, Manufacturer's Representative.



## CLOTHING AND TEXTILES

(Retailing)

Department of Vocational Education Studies  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Wayne L. St. John  
Coordinator  
Telephone - 618-453-3321  
Quigley Hall, Room 311

The retailing program at Southern Illinois University is offered through the Department of Vocational Education Studies. Professional and free elective hours make it possible for the student to choose the courses of greatest personal value.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115, 117 or 118	Biological Science	3	-
GE-A 106	Chemistry for Non-Science Majors	-	3
GE-B	Social Sciences (select)	3	3
GE-C	Humanities (select philosophy or literature) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
GE-E 107, 201 or 236	Human Health and Well Being (select)	-	2
VES 336	Survey of Clothing	3	-
Elective		-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-B 211	Contemporary Economics	3	-
GE-C 205	Innovation for the Contemporary Environment	3	-
GE-D 152 or 153	Interpersonal Communications or Public Speaking	-	3
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select activity)	-	2
ACCT 210 or 220	Principles of Accounting	-	3
VES 337	Clothing for Consumers	3	-
VES 345	Textiles	-	4
VES 347	Fashion Motivation	3	-
		<u>15</u>	<u>15</u>

<sup>1</sup>Art 100a will substitute for GE-C 101. Retailing students must take Art 100a.

## Third and Fourth Year

Courses during the last two years will include additional work in marketing, management and related business courses; core, electives and professional courses within the Clothing and Textiles Department; and elective hours. The retailing major should have some experience in a sales position before the junior year.

This specialization prepares students for a profession in retail stores, either as buyers or department managers. Other related retailing positions which are also available to the student include personnel, training, inventory control, and security.

Representative First Job Titles: Family Expenditures Education Specialist, Consumer Market Analyst, Consumer Relations Officer, Apparel Designer, Fashion Coordinator, Patterns Designer, Tailor, Clothing Economist, Fashion Merchandising Expert, Advertising Assistant, Retail Store Manager, Cost Analyst, Customer Services Specialist, Sales Agent, Purchasing Manager, Marketing Specialist, Textile Selector, Textile Laboratory Assistant, Customer Relations Specialist, Pattern Maker, Industrial Relations Specialist, Price Economist, Manufacturer's Representative.

The advertising business is a growing field, presenting tremendous employment opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials, title cards, finished lettering, fashion illustrations, airbrush and photo retouching and many others.

Students in this program develop multiple art skills so that they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build a career according to his or her own special interests and talents.

Each graduating CGD student is required to attain a 90% or better achievement on a vocabulary proficiency test, and to have compiled a professionally acceptable portfolio of work.

The student should expect to spend approximately \$1,000-\$1,200 for supplies, equipment, and materials over a two-year period.

An advisory committee whose members are active in the advertising and graphic design professions serves the program.

All faculty are professionals attracted from agencies or studios, hence are uniquely adept in the practical aspects of design.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 200	200 Level Elective (Psychology Recommended)	-	3
GE-D 101	English Composition	3	-
GE-D 153	Public Speaking	-	3
CG 110	Survey of Graphic Design	3	-
CG 120	Artistic Anatomy and Color Perception I	4	-
CG 122	Technical Drawing for Graphic Design	4	-
CG 124	Graphic Layout and Typography I	4	-
CG 130	Artistic Anatomy and Color Perception II	-	4
CG 132	Airbrush and Photo Retouching	-	4
CG 133	Copyfitting	-	1
CG 134	Graphic Layout and Typography II	-	4
*CG 150	Computer Applications for Commercial Graphics-Design	-	2
*PPT 109	Illustration and Product Photography	-	2
		<u>18</u>	<u>21</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CG 210	Advertising Graphics	8	-
CG 224	Publication Graphics	8	-
CG 222	Graphic Design and Advertising Illustration	-	8
CG 215	Dimensional Design	-	8
CG 230	Job Orientation Seminar	-	1
STC 102	Technical Writing (Special Course for Majors)	2	-
		<u>18</u>	<u>17</u>

\*Electives -- A student will select one, may take both, time permitting.

A minimum of 73 hours is required for this program.

Applicants will first be admitted to the University with a "provisional - Commercial Graphics" designation for the Fall 1986 semester, and then will be contacted by the program. At this point, they must submit a portfolio of required examples in addition to taking a workshop. Those students who show that they are the best prepared will be invited to enroll in the program. Counselors or art teachers may request a slide presentation or demonstration by a faculty member, time permitting. There is no charge for this service.

Representative First Job Titles: Commercial Artist, Layout Artist, Sketch Artist, Paste-up Artist, Package Designer, Freelance Artist, Illustrator, Mechanical Artist, Publication Designer, Photo-retoucher, Assistant to Art Director.

COMMUNICATION DISORDERS AND SCIENCES

(Clinical Specialization)

(Public School Specialization)

College of Communications and

Fine Arts

(Bachelor of Science)

Kenneth Ruder, Chairperson

Telephone - 618-453-4301

Communications Bldg., Rm 1003

The program in communication disorders and sciences has as its objective the training of qualified personnel to work with children and adults impaired in , language or hearing. The pre-professional undergraduate curriculum is broad in scope and presents the student with the necessary background for the professional program offered at the Master's level. Both state and national certification require the Master of Science degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B 108	The Sociological Perspective	3	-
GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-A, GE-B, or GE-C	Select <sup>1</sup>	-	3
GE-D 101, 117	English Composition and Expository Writing	3	2
GE-D 107	Intermediate Algebra	-	3
PHSL	Physiology course approved by department	-	3
		<u>16</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	(select) <sup>1</sup>	3	-
GE-B 206	Applied Child Development	3	-
GE-C	English elective in Humanities	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	1	1
GE-E 201	Healthful Living	2	-
PSYC 301	Child Psychology	-	3
CDS 200	Phonetics	3	-
CDS 203	Introduction to Language and Hearing Science	-	3
CDS 105	Introduction to Communication Disorders	-	3
ED 201	Teacher's Role in Public Education <sup>2</sup>	-	1
and GE-E or	Electives	-	2
PSYCH 211	Research Methods in Psychology	-	(4)
		<u>15</u>	<u>16</u>

<sup>1</sup> Refer to section: General Education for the Transfer Student.

<sup>2</sup> Public School Specialization.

Preparation for teacher certification should include the following courses taught via General Education: GE-B 202, Introduction to Psychology; GE-E 201 (Healthful Living); GE-B 212 or 301; GE-D 101; GE-D 117 or 118 or 119; GE-D 153; GE-E 100-114 (2 hours); and one additional English course from GE-C, GE-D or department.

Communication Disorders and Sciences As A Major

In the departmental major of 37 semester hours, the third and fourth year as an undergraduate presents the student with information concerning common disorders of , language and hearing such as phonology, language, voice, stuttering, and hearing loss. Graduate work is primarily devoted to the management of communication disorders in clinical or school settings as well as information concerning the more severe disorders such as cleft palate, stroke, autism, and fitting of hearing aids.

Extensive clinical experience (minimum of 300 clock hours) is obtained through work at the University's Clinical Center, the public schools in student teaching, special summer programs, the Marion Veterans Administration Hospital, SIU School of Medicine Clinical Program, the Anna State Hospital and other area hospitals or agencies.

Students will be encouraged to plan programs of study to meet academic and practicum requirements for the Certificate of Clinical Competence of the American -Language-Hearing Association.

Representative First Job Titles (All require certification/Master of Science degree): and Language Clinician, Pathologist, Therapist, Audiologist, and Hearing Consultant, Hearing Aid Specialist.



COMPUTER SCIENCE  
(Option A)  
College of Liberal Arts  
(Bachelor of Arts)

Dr. Kenneth Danhof - Chairperson  
Telephone - 618-536-2327  
Faner Bldg. Rm. 2126

Requirements for a major in computer science are specified in two alternative forms. The program under Option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition <sup>1</sup> and Writing (select) <sup>1</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
CS 202	Introduction to Computer Programming <sup>3</sup>	-	3
MATH 111	Pre-Calculus <sup>2</sup>	5	-
MATH 150	Calculus I <sup>3,5</sup>	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
FL	Foreign Language <sup>4</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CS 220	Advanced Programming Techniques <sup>3</sup>	3	-
CS 302	Assembly Language Programming <sup>3</sup>	-	4
MATH 221	Introduction to Linear Algebra <sup>3</sup>	-	3
MATH 250	Calculus II <sup>3</sup>	4	-
		<u>17</u>	<u>16</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Will substitute for general education mathematics.

<sup>3</sup>Required by the major.

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>5</sup>This course may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

CS 202 is a first course in programming using PASCAL as a vehicle. CS 220 is a second course in programming which also uses PASCAL as a vehicle. CS 302 is an intensive assembly language programming course.

Mathematics courses: The basic calculus requirement for a CS major under Option A is 8 hours as defined by Math 150 and 250. These may be taken in the student's third year without retarding graduation but it is preferable that they be taken earlier. Math 251 is not required, it is a recommended elective. Note that a student with insufficient background may have to take a pre-calculus course such as Math 111 prior to taking Math 150.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Representative First Job Titles: Programmer (Computer Programmer), Systems Analyst, Equipment Analyst, Computer Specialist, Process-Control Computers Scientist, Computer simulation Technician, Dealer Data Processing Personnel, Legislative Retrieval Specialist, Computer-Controlled Machinery Operator, Plant Protection Scientist, Safety Devices Operator, Security Devices Operator, Sales Representative, Computer Research Scientist, Consultant.

COMPUTER SCIENCE  
(Option B)  
College of Liberal Arts  
(Bachelor of Arts)

Dr. Kenneth Danhof - Chairperson  
Telephone - 618-536-2327  
Faner Bldg. Rm. 2126

The Department of Computer Science now offers a new undergraduate program leading to the Bachelor of Arts degree. The curriculum will provide a student with broad undergraduate training in computer science and will also permit concentration in particular areas of interest.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
CS 202	Introduction to Computer Programming <sup>3</sup>	-	3
MATH 116	Finite Mathematics and Algebra <sup>2,3</sup>	5	-
MATH 117	Finite Mathematics and Calculus <sup>2,3</sup>	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
FL	Foreign Language <sup>4</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
ACCT 220,230	Financial, Managerial Accounting <sup>3</sup>	3	3
CS 220	Advanced Programming Techniques <sup>3</sup>	3	-
CS 302	Assembly Language Programming <sup>3</sup>	-	4
		<u>16</u>	<u>14</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Mathematics Courses: Option B is a combination of finite mathematics and intuitive calculus which require less technical prerequisites. The requirement may be satisfied by taking Math 116, 117 or 139, 140, the choice depending on the student's background in mathematics. One of these courses may substitute for GE Math, and the other may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>3</sup>Required by the major.

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

Requirements for a major in computer science are specified in two alternative forms. The program under Option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing a student for a career in business and management information processing.

CS 202 is a first course in programming using PASCAL as a vehicle. CS 220 is a second course in programming which also uses PASCAL as a vehicle. CS 302 is an intensive assembly language programming course.

Computer Science As A Major

The department offers courses covering the major areas of computer science. These courses constitute the basis for an undergraduate curriculum which prepares students for professional and technical careers in government and industry or for graduate work leading to advanced degrees. The curriculum includes such topics as programming, computer hardware and software systems, simulation, data management and computer applications to business and science. Students will be advised with respect to computer science courses by the department so that they may profitably pursue their academic and professional interests.

Representative First Job Titles: Programmer (Computer Programmer), Systems Analyst, Equipment Analyst, Computer Specialist, Computer-Controlled Machinery Operator, Sales Representative, Consultant.

These courses provide training which will enable the individual to qualify for positions of greater opportunity and responsibility after relatively short periods of apprenticeship or trade experience in the fields of construction supervision, cost estimating, management, and building construction.

Field trips to nearby cities to study and observe various types of construction are made each school year. Allowance should be made for the purchase of small amounts of equipment and supplies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
STC 105a,b	Technical Mathematics	4	-
STC 107a,b	Applied Physics	-	4
CST 100	Construction Orientation	1	-
CST 102	Construction Drawing and Blueprint Reading	4	-
CST 103	Concrete Technology	-	4
CST 104	Surveying in Construction	4	-
CST 105	Construction Codes, Specifications Inspection, and Safety	-	2
CST 110	Residential Framing and Exterior Finish	5	-
CST 111	Interior Finish	-	5
CST 125	Structural Mechanics I	-	3
		<u>18</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition	3	-
GE-D 118 or 153	Technical Report Writing or Public Speaking	-	2 (3)
STC 120	Fiscal Aspects of Technical Careers	-	3
CST 203	Construction Materials	4	-
CST 207	Construction Management	-	3
CST 208	Construction Cost Estimating	-	3
CST 209	Mechanical Systems	-	4
CST 210	Remodeling and Renovation	5	-
CST 211	Commercial Construction	-	3
CST 225	Structural Mechanics II	3	-
Elective	Social Studies or Humanities	3	-
		<u>18</u>	<u>18 (19)</u>

#### Construction Technology As A Major

Residential and light commercial building construction offers a multitude of opportunities in the areas of management and supervision.

The student will learn basic energy efficient construction principles including active and passive solar applications, surveying, drafting and properties of construction materials. He or she will be able to develop construction details and working drawings, and to make construction cost estimates, including labor, materials, and schedules. The student will learn code requirements and specifications affecting mechanical equipment such as plumbing, heating, air conditioning, and illumination. He or she will acquire the knowledge necessary for basic management and business positions through the study of business fiscal management, technical writing, physical sciences, and mathematics.

The student in this program will have the benefit of a well-equipped wood utilization laboratory.

A minimum of 72 hours credit is required for the associate degree.

Representative First Job Titles: Carpenter, Construction Engineering Aide, Building Materials Salesperson, Estimator, Construction Foreman, Assistant to Contract Supervisor, Inspector, Assistant Project Manager.



CONSUMER ECONOMICS AND FAMILY MANAGEMENT  
 (Consumer Services in Business Option)  
 School of Technical Careers  
 (Bachelor of Science)

Dr. Fred R. Isberner, Coord.  
 Division of Advanced Technical  
 Studies, Telephone 618-536-6682  
 School of Technical Careers  
 STC Building, Room 126

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	3
*GE-B 108	Sociological Perspective <sup>1</sup>	3	-
GE-C	Humanities (select)	-	3
GE-D 101 & 117 or 118	English Composition and Writing <sup>1</sup>	3	2
GE-D 153	Public Speaking <sup>1</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select)	1	1
Elective		-	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	-	3
*GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
*GE-B 211	Contemporary Economics <sup>1</sup>	-	3
GE-C	Humanities (select)	3	3
GE-E	Human Health and Well Being (select)	2	-
GE-A, B, C	(select)	3	-
Electives	(accounting recommended)	5	6
		<u>16</u>	<u>15</u>

<sup>1</sup>Required General Education courses.

Third and Fourth Years

The last two years of a student's program concentrate on specialized objectives and departmental requirements. These include the following areas: consumer resources and problems, housing concerns, consumers in the market, family financial management, business law, and public relations. In the senior year, students participate in an internship and take a course preparing them to identify consumer affairs positions.

Graduates may work in a variety of industries (insurance, banking, airlines, utility companies, food retailers, food processors) and governmental agencies (local consumer affairs offices, FTC, FDA).

Representative First Job Titles: Consumer Services Specialist, Consumer Relations or Customer Relations Officer, Consumer Affairs or Information Specialist, Consumer Educator, Community Liaison Specialist.

CONSUMER ECONOMICS AND FAMILY MANAGEMENT  
(Family Service Consultant Option)  
School of Technical Careers  
(Bachelor of Science)

Dr. Fred R. Isberner, Coord.  
Division of Advanced Technical  
Studies, Telephone - 618-536-6682  
School of Technical Careers  
STC Building, Room 126

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This option prepares students for employment in public and private welfare agencies, cooperative extensions, local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	3
GE-B 108	Sociological Perspective <sup>1</sup>	3	-
GE-C	Humanities (select)	-	3
GE-D 101, & 117 or 118	English Composition & Expository or Technical Report Writing <sup>1</sup>	3	2
GE-D 153	Public Speaking <sup>1</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being	2	1
Electives		-	3
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	-	3
GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
GE-B 211	Contemporary Economics <sup>1</sup>	-	3
GE-C	Humanities (select)	3	3
GE-E	Human Health and Well Being (select)	-	1
GE-A, B, C	(select)	-	3
F&N 100	Fundamentals of Nutrition	3	-
Electives		<u>6</u>	<u>3</u>
		<u>15</u>	<u>16</u>

<sup>1</sup> Required General Education courses.

Third and Fourth Years

Education during the third and fourth years emphasizes departmental requirements and advanced courses in Consumer Economics and Family Management. They include the following areas: consumer resources and problems, housing concerns, family financial management, management for low-income families, consumer health, marriage and family living, and family counseling. In the senior year, students participate in an internship experience.

Representative First Job Titles: Money Manager, Hospital Patient Representative, Social Services Agency Worker, Senior Citizens Agency Counselor, Budget or Credit Counselor, Consumer and Family Finance Specialist.

## DENTAL HYGIENE

School of Technical Careers  
(Associate in Applied Science)

Catherine Jensen  
Program Coordinator  
Telephone - 618-536-6682  
STC Building, Room 18D

The dental hygienist is an important member of the dental health team, and is the only one other than the dentist who is permitted by law to work directly in the mouth of the patient. Both men and women enjoy the profession. Many dental hygiene graduates work in private practice. In this setting, all states require the dental hygienist to be licensed and to work under the supervision of a licensed dentist. The hygienist's area of responsibility includes oral prophylaxis (scaling and polishing of the teeth), chairside assisting, x-ray examinations, laboratory techniques, office and administrative procedures, dental health education, and other areas of preventive dentistry. Alternative employment opportunities include teaching, public health dentistry, civilian employment at military installations, sales and marketing for dental companies, management positions in dental clinics or related health care facilities, and consulting for long term health care facilities. Future changes in statutes may open possibilities for independent private practice. Several states currently allow independent contracting in private practice.

This program is fully accredited by the Council on Dental Education of the American Dental Association. Available facilities restrict first-year enrollment to 50 students. Interested persons should contact New Student Admission Services and the dental hygiene admissions clerk. Special application materials are included in requirements for admission to the program.

All application materials to the University and to the program for Fall 1987 should be on file no later than January 16, 1987. Selection of the fall class will be completed soon after that date. Applications completed after that date may be considered for acceptance at the discretion of the admissions committee.

The dental hygiene student has expenses of about \$2600 in addition to University tuition and fees. This covers the cost of instruments, uniforms, liability insurance, and a basic professional library; in addition they spend time at the School of Dental Medicine in Alton, Illinois, for an internship experience.

First Year		Fall	Spring
GE-A 106	Chemistry for Non-Science Majors	3	-
GE-D 101	English Composition	-	3
GE-D 152	Interpersonal Communication	3	-
AHC 141	Anatomy and Physiology	4	-
MICRO 201	Elementary Microbiology	-	4
DH 126	Oral Anatomy and Tooth Morphology	3	-
DH 133	Histology and Embryology	2	-
DH 137	Pre-Clinical Dental Hygiene	5	-
DH 138	Pathology	-	2
DH 147	Preventive Dentistry	-	1
DH 208	Clinical Dental Hygiene	-	4
DH 211a	Seminar	-	1
DH 218a	Dental Radiology	-	2
DH 226	Anatomy of the Head and Neck	-	2
		20	19

### Summer Session (8 weeks)

DH 209	Dental Hygiene Clinic	3	
DH 211b	Seminar	1	
DH 217	Dental Nutrition	2	
DH 218b	Dental Radiology	2	
		8	

Second Year		Fall	Spring
GE-B 202	Introduction to Psychology	-	3
DH 201	Dental Materials	4	-
DH 238	Oral Pathology	2	-
DH 240	Pharmacology	2	-
DH 241	Periodontology	2	-
DH 248 and 348	Dental Public Health and Community Dentistry and Practicum	2	2
DH 310a,b	Clinical DH and Radiology	6	6
DH 311a,b	Senior Seminar	1	1
DH 315	Ethics, Jurisprudence and Office Management	-	2
SOC 321	Socialization of the Individual	-	3
		19	17

A minimum of 83 hours is required for this program.

Representative First Job Titles: Dental Hygienist, Researcher, Health Administrator, Registered Dental Hygienist, Dental Hygiene Educator, Public Health Dental Hygienist.



Dental Technology is concerned with the construction of replacements for natural teeth which have been lost by disease or accident. A technologist trained in this art is called a Dental Technician.

The relationship of the dental technician to the dentist is similar to that of the pharmacist to the physician or the optician to the eye specialist. Important members of the dental health team, students find their skills and knowledge are invaluable. They work from a prescription from the dentist and are employed in the dental office or in dental laboratories varying in size from one to as many as 100 people.

The Dental Technology program includes extensive study covering all phases of dental technology and leads to an associate in applied science degree. The program was designed so that students would receive not only technical training but also general education courses to prepare them for a socially complex world. It is for this reason that approximately one-third of the total curriculum consists of general education courses.

The technical curriculum covers a complete study of dental morphology, fabrication of dental restorations and appliances in all the prosthetic phases of dentistry, dental materials, dental laboratory management and other related subjects. Students who enjoy working with their hands will find dental technology to be an especially rewarding career.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 101	Conceptual Insights, Modern Communi- cation Systems	-	3
GE-A 106	Chemistry for Non-Science Majors	3	-
GE-D 101	English Composition	3	-
DT 102*	Tooth Anatomy	4.5	-
DT 103a*	Complete Dentures I	4.5	-
DT 103b*	Complete Dentures II	-	4.5
DT 104a*	Removable Partial Dentures I	4.5	-
DT 104b*	Removable Partial Dentures II	-	4.5
DT 113a	Science of Dental Materials	-	2
DT 128	Oral Anatomy	-	1
DT 143	Orientation to Dental Technology	1	-
DT 200*	Dental Occlusion	-	4.5
		<u>20.5</u>	<u>19.5</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 152	Interpersonal Communication	-	3
DT 113b	Science of Dental Materials	2	-
DT 106*	Dental Orthodontics & Pedodontics	4.5	-
DT 204a*	Crown and Bridge I	4.5	-
DT 204b*	Crown and Bridge II	4.5	-
DT 205	Dental Laboratory Management	1	-
DT 206a*	Dental Ceramics I	-	4.5
DT 206b*	Dental Ceramics II	-	4.5
DT 210*	Applied Prosthodontics	-	4.5
STC 102	Technical Writing	2	-
STC 120	Fiscal Aspects of Technical Careers I	-	3
		<u>18.5</u>	<u>19.5</u>

\*Five-week module.

#### Dental Technology As A Major

This program is the second oldest dental technology program in the country, and is the first of its kind in the state of Illinois to be accredited by the Commission on Dental Accreditation for the American Dental Association. The program has maintained 'full approval' accreditation status since it was founded in the summer of 1956.

The Commission's standards are sufficiently high to ensure that the graduate of such an accredited program has the best education it is possible to give in the time allocated. The staff is highly qualified for teaching this portion of the dental field, having enjoyed many years of experience in dental education and technology education. This is backed by years of practical experience in the entire field. Graduates are eagerly sought by the owners of the many ethical laboratories throughout the United States and foreign countries.

The student should expect to spend about \$800.00 for a dental kit, laboratory jacket, Delta Tau Club, and recognized graduate exam fee over a two year period.

Representative First Job Titles: Dental Technician, Sales Representative, Technical Representative.

## DESIGN

(Product)  
(Visual Communications)  
School of Art  
College of Communications and Fine Arts

Divisional Executive Officer  
Telephone 618-536-7741  
Quigley Hall, Room 128C

The faculty and students of the Design Program are a part of the School of Art.

Design is defined as devising innovative courses of action to change existing situations into preferred situations. This definition translated into the educational purpose of the Design program means that our prime responsibility is to develop within our participants generalized abilities to cope effectively with multi-faceted design problems.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select)	3	-
GE-C 205	Innovation for the Contemporary Environment	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
ART 100a,b	2-D and 3-D Design	3	3
ART 107	Fundamentals of Art	3	-
ART 110	Beginning Drawing I	3	-
ART 207	Survey of Art	-	3
DES 102	Design Fundamentals	-	4
		<hr/> 15	<hr/> 15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	3
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	3	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select)	1	1
ART 120 or 203,204,205,206	Beginning Drawing II or 3-D Studio	3	-
ART 346	Survey of 20th Century Art	-	3
DES 201	Survey of Design	-	3
		<hr/> 16	<hr/> 16

## Third and Fourth Years

If not completed at the junior college level, GE-C 205 should be taken the first semester the transfer student is at SIU. Other courses taken the last two years will include additional design core, professional preparatory and elective courses. Two options are available: product design and visual communications.

Product design prepares a student for careers designing a very broad range of items for a great diversity of uses, such as medical/therapeutic products, playground/recreational equipment, toys and games, and household artifacts.

Visual communications prepares a student to design a variety of items meant specifically to carry a message to the user/buyer. These items include such things as new letterheads and forms with logos for a corporation, point-of-sale displays and advertising, layout of proposals, brochures and annual reports, signage, and environmental communications.

**Representative First Job Titles:** Story Illustrator, Advertising Layouts Specialist, Billboard Designer, Displays Organizer, Greeting Cards Designer, Annual Report Designer, Television Commercials Specialist, Title Cards and Set Designer, Fashion Illustrator, Architectural Assistant, Airbrush & Photo Retouching Artist, Graphic Processes Specialist, Graphic Designer, Advertising Illustrator, Copywriter, Fashion Designer, Typographic Designer, Cameraman, Technical Illustrator, Systems Evaluator, Technical Sales Representative, Publications Assistant, Manufacturer's Representative.

EARLY CHILDHOOD  
(Child and Family Services)  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Billy Dixon, Chairperson  
Curriculum, Instruction & Media  
Telephone 618-536-2441  
Wham Building, Room 327

Within a major in Early Childhood, the curriculum offers a specialization in Child and Family Services. These courses offer basic background leading to position as nursery school director or teacher in private schools, colleges and universities and day care centers; director or teacher in residential living facilities for exceptional children; child care specialists with social, public health and welfare agencies; home economics extension specialists in child care; and recreational leaders.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	3
*GE-B 108	The Sociological Perspective	-	3
*GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing	-	2
GE-D 152	Interpersonal Communication	-	3
F&N 100	Fundamentals of Nutrition	3	-
GE-E	Human Health and Well Being (select)	-	2
		15	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	3	-
*GE-B 212	Intro. to American Government & Politics	-	3
GE-C	Humanities (select)	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	P.E. Activity	-	2
C&F 227	Marriage and Family Living	3	-
C&F 237	Child Development	3	-
Elective		3	4
GE	Additional coursework from A, B, or C	-	3
		15	15

\*Required General Education courses. See section on General Education for the Transfer Student.

#### Early Childhood As A Major

No minor required.

Flexibility of program provides for specialization in the areas of direct care of children, teaching, and community development related services.

Graduate degree available.

Faculty have varied interests in child development/family relations, retardation, motivation of the child, sex education, child abuse.

Excellent facilities - Child Development Laboratory with observation booth, and only infant care laboratory in the state.

Representative First Job Titles: Nursery School Director, Day Care Center Director, Child Care Specialist, Home Economics Extension Specialist, Recreational Leader, Residential Life Supervisor, Preschool Director, Child Behavior Education Specialist, Child Welfare Education Specialist, Child Placement Education Specialist, Family Welfare Education Specialist, Cultural Education Specialist, Sales Trainee, Children's Programs Organizer, Child Development Specialist, Minority Groups & Race Relations Education Specialist, Population Education Specialist, Teacher (Pre-School).



EARLY CHILDHOOD  
(K-3)  
College of Education  
(Bachelor of Science)

Dr. Billy Dixon, Chairperson  
Telephone - 618-536-2441  
Wham Building, Room 327

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Following are the requirements for the Bachelor of Science degree with a concentration in early childhood education which meet the minimum requirements for a standard Elementary School Certificate.

In addition to general University and College of Education requirements, a student must meet all prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C 100	Music Understanding <sup>2</sup>	-	2
GE-C 101	Introduction to Art	3	-
GE-C	Fine Arts from General Education	-	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking <sup>2</sup>	2	-
GE-D 117	Expository Writing <sup>2</sup>	-	2
GE-E	P.E. Activity <sup>2</sup>	1	1
GE-E 201	Healthful Living <sup>2</sup>	-	2
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-B 301	History of U.S. <sup>2</sup>	-	3
GE-C	Literature (select) <sup>2</sup> (or English required)	3	-
GE-C	Fine Arts	-	3
MATH 114	Algebraic and Arithmetic Systems	4	-
PE 202	Physical Activity for Children and Youth	3	-
MATH 314	Math for Elementary Teachers	-	3
MUS 101	Music Fundamentals	-	3
		<u>16</u>	<u>15</u>

<sup>1</sup>See section on General Education for the Transfer Student.

<sup>2</sup>Required for teacher certification.

Early Childhood Education (K-3) As A Major

Students who plan to teach grades K-3 should major in Early Childhood Education.

Students should also refer to the section in this handbook specifying the requirements for entrance into the Formal Teacher Education Program.

Excellent facilities--Child Development Laboratory with observation booth, and only infant care lab in the state.

EARLY CHILDHOOD  
(Preschool Certification Program)  
College of Education  
(Bachelor of Science)

Dr. Billy Dixon, Chairperson  
Teacher Education Services  
Telephone - 618-536-2441  
Wham Building, Room 327

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

For the last decade educators have become increasingly aware of the importance of providing quality care and guidance for the preschool child. This program has been designed for persons interested in the education of children 0-6 years of age. It is offered jointly by the College of Education and the College of Human Resources. Students following this program will meet state certification requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 202	Introduction to Psychology <sup>3</sup>	3	-
GE-C 100	Music Understanding <sup>3</sup>	2	-
GE-C	Humanities (Art & Music are required) <sup>2,3</sup>	-	3
GE-D 101	English Composition <sup>3</sup>	3	-
GE-D 117 or 119	Expository or Creative Writing <sup>3</sup>	-	2
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	P.E. Activity <sup>3</sup>	-	2
GE-E 201	Healthful Living <sup>3</sup>	-	2
Elective		1	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 212 or 301	American Government or U.S. History <sup>3</sup>	4	-
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
CIM 227	Marriage and Family Living	3	-
CIM 237	Early Child Development I	3	-
F&N 215	Fundamentals of Nutrition	-	3
Psyc 301	Child Psychology	-	3
Elective		-	3
		<u>15</u>	<u>15</u>

<sup>1</sup> See section on General Education for the Transfer Student.

<sup>2</sup> Under Humanities, Music 101 is to be substituted for GE-C 100. Art may be GE-C 101, 204, 205 or Art 100.

<sup>3</sup> Teacher certification requirements include GE-B 202; GE-B 212 or 301; GE-C 100; an art class; GE-D 101; GE-D 117 or 119; GE-E 201; and GE-E 100-114.

Refer to the Undergraduate Catalog for additional information on this program.

Specific General Education courses listed are required for this program.

Faculty have varied interests in Child Development/Family Relations, retardation, motivation of the child, sex education.

Excellent facilities--Child Development Laboratory with observation booth, and only infant care lab in the state.

## ECONOMICS

College of Liberal Arts  
(Bachelor of Arts)

Dr. Robert J. Ellis, Jr. - Chairperson  
Telephone - 618-536-7746  
Faner Building 4121

The Economics major consists of 33 semester hours. Of these, 18 hours are required courses. With 15 hours remaining, a student can choose courses in the following areas: Comparative Systems, Economic Development, Economic History, Economic Theory, Econometrics, Human Resources, International Economics, Money and Banking, Political Economy, Public Finance. The flexibility permitted by the electives available makes possible a program tailored to meet the needs of individual career preparation plans.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118, or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D	Speech (select) <sup>1</sup>	-	3
MATH 116	Finite Mathematics and Algebra	5	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
MATH 117	Finite Mathematics and Calculus <sup>2</sup>	-	5
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select)	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
FL	Foreign Language <sup>3</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
*ECON 214, 215	Introduction to Macro and Micro Economics <sup>4</sup>	3	3
Elective <sup>5</sup>		<u>3</u>	<u>3</u>
		<u>15</u>	<u>16</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>The mathematics requirement for economics majors is Math 117 or 140 or 150. This also fulfills a Liberal Arts requirement.

<sup>3</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>4</sup>Part of Economics major requirement. Economics 214 also satisfies part of GE-B requirements.

<sup>5</sup>Elective hours should be used in the following ways: 1) students may explore areas of interest or 2) arrange a program tailored to meet specific career objectives. For example students interested in a career in business or government should consider taking elective courses in accounting and other business subjects and computer science. Those considering graduate study in economics are encouraged to take several courses in mathematics.

## Economics As A Major

Students majoring in economics find jobs in various areas of business, including banking and finance, industry, trade, and utilities to name a few. Many economics majors go to work for government agencies at all levels--federal, state, and local. For example several SIUC graduates with economics majors have been hired by the Illinois Bureau of the Budget and other state agencies. Majoring in economics is also widely considered to be excellent preparation for graduate study in business, law or any of the social sciences. The requirements for a major in economics are very flexible with 26-33 hours of electives.

## To Counselors

We recommend that high schools students thinking of majoring in economics in college take as much English (composition and literature), mathematics, government, and history as possible. If economics is offered, that, of course, is recommended too.

For community college students interested in economics, we recommend principles of macro and micro economics, English, and mathematics in addition to (or part of) general education courses.

Representative First Job Titles: Market Research Analyst, Econometrician, Economic Analyst, Economic Forecaster, Finance Administrator, Budget Analyst, Gov't Economic Enterprises Studies Officer, International Banking Officer, International Trade Economist, Investment Analyst, Loan Administrator, Industrial Economist, Manufacturer's Representative, Production Supervision, Price Economist, Transportation Economist, Labor Economist, Business Planner, Economic Geographer, Legislative Aide, Population Economic Analyst, Right-of-Way Agent, Tax Economist, Urban Economist.



See also: civil engineering, engineering: engineering mechanics option, engineering: thermal and environmental option, mechanical engineering, and mining engineering.

The Department of Electrical Engineering offers courses in the major areas of electrical and computer engineering. Students who choose the electrical engineering major prepare themselves for professional and technical employment or graduate studies leading to advanced degrees. Employment opportunities exist within a wide range of organizations, such as governmental laboratories; consumer goods manufacturers; and telecommunications, electric power, computer and microelectronic companies. Flexibility in this major allows students to choose among courses in application and theory of circuits, systems, communications, digital systems, controls, electronics, instrumentation, electromagnetics and power systems.

The electrical engineering major is a new program being created to replace the electrical sciences and systems engineering specialization. The electrical engineering major is virtually the same as the electrical sciences and systems engineering specialization and is accredited by the Accreditation Board for Engineering and Technology (ABET).

First Year		Fall	Spring
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1,2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		17	17
Second Year		Fall	Spring
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics) <sup>4</sup>	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics and Lab <sup>3</sup>	4	4
		17	16

<sup>1</sup>See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup>Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup>Substitutes for General Education requirements.

<sup>4</sup>ENGR 260B is optional, for electrical engineering students.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the College's Retention Program.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

Representative First Job Titles: Electrical Engineer, Product Development and Design Engineer, Product Application and Test Engineer, Sales, Operations Research Analyst, Patent Engineer, Communications Engineer, Computer Engineer, Power Engineer, Systems Engineer, Electronics Engineer, Software Engineer, Control Engineer, Digital Signal Processing Engineer.

## ELECTRONIC DATA PROCESSING\*

School of Technical Careers  
(Associate in Applied Science)

Byron Johnson  
Program Coordinator  
Telephone - 618-536-6682 ext. 268  
Faner Building, A-2040

The growth of electronic data processing both in the expansion of installations and in the complexity of hardware and software has increased the need for competent computer programmers and systems analysts. Accurate and effective information processing is essential in any organization or institution.

The curriculum in electronic data processing prepares students for employment as business computer programmers and systems analysts. Skills which the graduate obtains include competency in programming languages (such as COBOL, Assembler, and RPG) and associated areas such as accounting and systems design and development.

An outstanding feature of the program at the School of Technical Careers is the availability of an IBM 3081GX computer system and a prime computer system for batch and interactive use. The hardware and software configuration is representative of large computer installations in industry. The data center is accessible for approximately 100 hours per week.

Lab fees may be required for certain programming courses.

An advisory committee of professional people and educators helps to keep the program responsive to needs in the field.

<u>First Year</u>	<u>Fall</u>	<u>Spring</u>
GE-D 152 or 153	Interpersonal Communication or Public Speaking	- 3
GE-D 101	English Composition	3 -
STC 120, 220	Applied Accounting	3 3
STC 102 or GE-D 118	Technical Writing	- 2
EDP 101	Introduction to Data Processing	3 -
EDP 102	Introduction to Programming	3 -
EDP 206	RPG Programming	- 3
EDP 104	Data Processing Applications	3 -
EDP 103	COBOL Programming I	- 3
EDP 135	Data Processing Math	3 -
	<u>18</u>	<u>14</u>
<u>Second Year</u>	<u>Fall</u>	<u>Spring</u>
Elective	Approved Social Science	3 -
EDP 203	Job Control Language and Utilities	3 -
EDP 204	COBOL Programming II	3 -
EDP 205	Systems Design and Development	- 3
EDP 207	DP Project	- 6
EDP 201	Assembler Language Programming	- 4
STC 210A	Job Orientation	2 -
Electives	Approved Technical Electives	3 3
	<u>14</u>	<u>16</u>

### Electronic Data Processing As A Major

A minimum of 60 hours of credit must be completed for graduation. A minimum grade of 'C' is required in all courses with an EDP prefix.

Students may begin the program in the spring semester, but five semesters may be required for completion.

### Electronic Data Processing As A Minor

Twenty hours of work in electronic data processing and related courses are required for a minor. A list of required courses is available from the program coordinator.

Representative First Job Titles: Computer Programmer, Systems Analyst.

\* The degree title for this program is being changed to Computer Information Processing. Changes may occur in course numbers, etc. Contact the program coordinator for details. These changes will be reflected in our new 1987-88 Undergraduate Catalog due to be distributed in October of 1986.

ELECTRONICS MANAGEMENT

School of Technical Careers  
(Bachelor of Science)

Dr. Rod Broker, Advisor  
Division of Advanced Technical Studies  
Telephone - 618-536-6682  
STC Building, Room 126

The Division of Advanced Technical Studies (ATS) in the School of Technical Careers offers a bachelor of science degree in electronics management. The electronics management major combines advanced technical training with development of supervisory and management skills. Electronics management graduates enter a variety of electronic careers specialties including communications, automotive, avionics, personal computers, and biomedical applications.

The bachelor of science degree in electronics management allows students with an associate in applied science degree to build upon their technical training through a combination of ATS core courses, major requirements, approved major electives and SIU general education requirements.

The 45 hour general education requirement may be satisfied by completing courses at any accredited college or university, credit received through CLEP, USAFI, DANTES or through proficiency examinations. Students who have completed an A.A.S. degree may be eligible for the Capstone option. This option reduces the hours required in general education from 45 to 30. Students may also receive credit for previous educational, military and occupational experience. Credit is established by departmental evaluation. In addition, field internships and independent study opportunities are available upon approval by the student's faculty advisor.

First Year

GE-A	Science (select)	3	3
GE-B	Social Science (select)	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health & Well Being (select) <sup>1</sup>	2	-
Electives or	Technical Specialization	7	5
		<u>18</u>	<u>17</u>

Second Year

GE-A	Science (select)	3	-
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 118	Technical Report Writing	-	2
GE-D 152	Interpersonal Communication or		
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
Electives or	Technical Specialization	9	8
		<u>18</u>	<u>18</u>

\*GE Total = 45 hours. See advisor to determine eligibility for Capstone option.

Third and Fourth Years

ATS core courses - 12 hours required.

ATS 364	Work Center Management	3
ATC 416	Applications of Technical Information	3

Two of the following:

ATS 332	Labor Management Problems	3
ATS 383	Data Interpretation	3
ATS 421	Professional Development	3
		<u>12</u>

Electronic Management Specialization Requirements - 15 hours

ELT 301	Biomedical Instrumentation Lecture	5
ELT 302	Optical Electronics Lecture	4
ELT 303	Microcomputer Const. & Trblsh. Lecture	5
ELT 304	Communication Systems	4
ELT 311	Biomedical Instrumentation Lab	6
ELT 312	Optical Electronics Lab	2
ELT 313	Microcomputer Const. & Trblsh. Lab	6
		<u>15</u>

NOTE: At least one set of ELT lecture and lab courses is required.

Electronics Management Specialization Electives - 9 hours

Courses must be approved by advisor.

Internship, Independent Study or approved equivalent - 12 hours.

Approved career electives - 27 hours.

TOTAL = 120 hours.

Representative First Job Titles: Electronics Technician, Service Representative.



ELECTRONICS TECHNOLOGY  
School of Technical Careers  
(Associate in Applied Science)

William G. Shupe  
Program Coordinator  
Telephone-618-536-6682  
Ext. 249  
STC Building, Room 203

The Electronics Technology program provides instruction for the education of semiprofessional electronics technicians who are capable of taking places in industry in both indirect and direct support of the electronics engineer, and to provide both practical and theoretical experiences in electrical power.

Students will gain a thorough understanding of AC-DC and active element circuits so that they can design, construct, test and analyze new types of circuitry. They will learn digital circuits and CAD as well as industrial systems to include Robots in a theory-laboratory situation where they will develop the ability to solve problems and report test results in data sheets, graphs and technical papers. They will use diagnostic analyses to troubleshoot and repair electronics equipment.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition	-	3
GE-D 153	Public Speaking	-	3
STC 105a,b	Technical Mathematics	4	-
ELT 101	AC-DC Circuit Analysis Theory	5	-
ELT 111	AC-DC Circuit Analysis Lab	6	-
ELT 121	Electronics Devices	3	-
ELT 102	Electronics Circuits Theory	-	5
ELT 112	Electronics Circuits Laboratory	-	6
ELT 224	Computer System Applications	-	3
		<u>18</u>	<u>20</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
STC 102 or GE-D 118	Technical Writing	-	2
STC 107a,b	Applied Physics	4	-
ELT 201	Telemetry and Industrial Circuits Theory	5	-
ELT 211	Telemetry and Industrial Circuits Lab	6	-
ELT 221	Electronics Systems Analysis	3	-
ELT 202	Digital Electronics Theory	-	5
ELT 212	Digital Electronics Laboratory	-	6
EDP 217 or CS 202 or CS 212	Computing for Business Administration or Intro to Computer Programming or Intro to Business Computing	-	3
		<u>18</u>	<u>16</u>

Electronics Technology As A Major

Graduates are employed by major corporations such as: General Electric, Emerson Electric, AT&T Bell Research Laboratories, IBM, General Tire and Rubber Company, Digital Equipment Corporation, Texas Instruments, Rockwell, General Telephone (Automatic Electric), Motorola, and McDonnell-Douglas. About 60% of these graduates work in indirect support positions and the remaining in direct support positions.

During the first year of the program, most instruction is directed toward basic principles of electricity and electronics. This is followed by digital circuits to include Microprocessors and Computer Aided Design and Industrial Systems which includes Robotics and other principles used in the electronics industrial world. Throughout the four semesters of study, students will have a minimum of ten hours of laboratory experiences (hands on) per week. Each laboratory class requires projects the student will design and construct. Second year students select projects related to personal interest within the framework of the class. While hands on experience is stressed, it by no means implies that theory is underemphasized. Each student receives eight hours per week of electronics theory lectures. Curriculum of both lectures and laboratories are constantly changing based on input from a very active Advisory Committee which is made up of representatives from IBM, AT&T, Texas Instruments, ITC/3M, Elcon Systems, Caterpillar, ALCOA, Zenith, Motorola, Gould, Delco, Emerson Electric, and McDonnell-Douglas.

Workbooks and supplies required for laboratory courses cost approximately \$150.00. A minimum of 72 hours of credit must be completed for graduation.

Students who wish to complete a four year degree may do so in the School of Technical Careers. Advanced electronics courses are available in biomedical electronics, optoelectronics, microcomputer construction, communication systems electronics and computer maintenance. While it is possible to enter the four year program as a transfer student, it is highly recommended each student enter the associate degree program in electronics at SIU to ensure all skills are obtained that are expected in the advance electronics courses.

Representative First Job Titles: Electronics Technician, Bench Technician, Repair Analysis Technician, Bio-Medical Technician, Instrument Engineer, Technical Sales Representative, Customer Technician, Quality Control Technician, Field Technician, Field Engineer, Customer Engineer, Technical Writer.

ELEMENTARY EDUCATION (K-9)  
College of Education  
(Bachelor of Science)

Dr. Billy Dixon, Chairperson  
Telephone - 618-536-2441  
Wham Building, Room 327

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-536-2441  
Wham Building, Room 135

Following are the requirements for the Bachelor of Science degree with a concentration in elementary education which meet the minimum requirements for a standard Elementary School Certificate.

In addition to general university and College of Education requirements, a student must meet all requirements pertaining to prerequisites to student teaching and should study the section in the Undergraduate Catalog which lists such requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities, Fine Arts (select) <sup>1,2</sup>	3	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117	Expository Writing <sup>2</sup>	-	2
GE-D 152 or 153	Interpersonal Communication or		
	Public Speaking <sup>2</sup>	3	-
GE-E	P.E. Activity <sup>2</sup>	2	-
GE-E 201	Healthful Living <sup>2</sup>	-	2
LANGUAGE ARTS	(select) <sup>2</sup>	-	3
		<u>17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	2
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-B 301	History of U.S. <sup>2</sup>	-	3
GE-C	Literature (select) <sup>2</sup> (or English required)	3	-
MATH 114	Algebraic and Arithmetic Systems	3	-
MATH 314	Math for Elementary Teachers	-	3
MUS 101	Music Fundamentals (or GSC Music)	-	3
GE	Area of Interest (select) <sup>2,3</sup>		
GE-B 212	Introduction to American Government		
	and Politics <sup>2</sup>	3	-
		<u>15</u>	<u>15</u>

<sup>1</sup>See section on General Education for the Transfer Student.

<sup>2</sup>Teacher certification requirements.

<sup>3</sup>Eight hours must be taken for an area of interest in one of the following: science, language arts, social studies, math, language other than English, media, multicultural studies, the arts, physical education or environmental education. Courses selected must be ones in addition to those used to meet general education requirements.

Elementary Education (K-9) As A Major

Students who plan to teach children from grades K-9 and specifically grades 4-6 should major in Elementary Education.

All students should refer to the section in the handbook specifying the requirements for entrance into the Formal Teacher Education Program.

## ENGINEERING

Engineering Mechanics Option  
College of Engineering and Technology  
(Bachelor of Science)

Dr. Philip K. Davis  
Telephone - 618-536-2368  
Technology Building, Room D23

See also: civil engineering, electrical engineering, engineering: thermal and environmental option, mechanical engineering, and mining engineering.

The engineering mechanics option is designed to help students prepare for a broad professional career in theoretical and applied mechanics or to prepare for graduate studies. Inherent in the program is a broad foundation in the basic engineering sciences. Coursework is offered by the department in theoretical and experimental stress analysis, vibrations, design, mechanics of materials, fluid mechanics, soil mechanics and foundations, structural analysis and design, numerical methods, and supersonic flow. The student, with the help of an adviser, is encouraged to choose a sequence of technical electives to achieve a solid and coherent specialization.

The four year undergraduate program leading to the Bachelor of Science degree in engineering with a specialization in engineering mechanics is a modern, flexible curriculum. The option in engineering mechanics is fully accredited by the Accreditation Board for Engineering and Technology (ABET).

First Year		Fall	Spring
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1,2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		17	17
Second Year		Fall	Spring
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics)	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics and Lab <sup>3</sup>	4	4
		17	16

<sup>1</sup> See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup> Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup> Substitutes for General Education requirements.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the College's Retention Policy.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

### Career and Employment Opportunities

Engineering mechanics graduates are successfully employed in industries such as aerospace, automotive, equipment manufacture, research, consulting nuclear, and many others.



## ENGINEERING

Thermal & Environmental Engineering Option  
College of Engineering and Technology  
(Bachelor of Science)

Dr. Albert C. Kent  
Telephone - 618-536-2396  
Technology Building, Room B36

See also: civil engineering, electrical engineering, engineering: engineering mechanics option, mechanical engineering, and mining engineering.

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind.

The four-year undergraduate program leading to the Bachelor of Science degree in engineering with a specialization in thermal and environmental engineering is fully accredited by the Accreditation Board for Engineering and Technology (ABET). This specialization provides a strong engineering sciences background with depth in thermal systems, pollution control or heat and mass transfer processes related to chemical processes.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1,2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		<u>17</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics)	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics and Lab <sup>3</sup>	4	4
		<u>17</u>	<u>16</u>

<sup>1</sup>See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup>Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup>Substitutes for General Education requirements.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the college's Retention Policy.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

Representative First Job Titles: Mechanical Engineer, Plant Engineer, Product Development and Design Engineer, Product Application and Test Engineer, Sales, Patent Engineer, Quality Assurance Specialist, Environmental Protection Engineer.

## ENGINEERING TECHNOLOGY

(Civil)

College of Engineering and Technology  
(Bachelor of Science)

Mr. Timothy Ziegler

Telephone - 618-536-3396

Technology Bldg, Room D105

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the technician and the engineer at the end of the spectrum closest to the engineer.

All curricula in Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. These include the Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology curricula.

The CET specialization is for students interested in careers with construction industries, state and federal highway departments, architectural/engineering consulting firms, coal companies, railroads, and environmental agencies. Graduates may participate in such civil engineering activities as surveying and the design and construction of airports, bridges, highways, dams, power plants, pipelines, mines, water and wastewater treatment plants, residential complexes and railroads.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
CHEM 115	Chemistry <sup>1</sup>	-	3
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	2	-
ET 103	Engineering Drawing I	3	-
MATH 111	College Algebra and Trigonometry <sup>1</sup>	5	-
MATH 150	Calculus I	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Biological Science	-	3
GE-C	Humanities (select)	-	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
ET 202	Structural Graphics	2	-
ET 260a	Principles of Mechanics, Statics	3	3
ET 317	Fluid Mechanics	-	2
MATH 250	Calculus II	4	-
PHYS 203a,b & 253a,b	College Physics and Lab <sup>1</sup>	4	4
ENGR 222	Computational Methods	-	2
		<u>16</u>	<u>16</u>

<sup>1</sup>Substitutes for General Education.

Engineering Technology As A Major with a specialization in Civil Engineering Technology.

To remain in the College, students are subject to the requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering technology used in determining the major grade point averages are courses with the prefix ET. This is part of the college's Retention Policy.

A minor is not required. Foreign language is not required.

For the Bachelor's degree in CET the requirements are: 27 semester hours of mathematics and basic science; 30 semester hours of communications, humanities and social studies; 67 semester hours of required and elective technology courses. A minimum of 30 semester hours in Engineering Technology must be taken in residence at SIU.

Career and Employment Opportunities in CET.

Employment opportunities for graduates with B.S. degrees in Civil Engineering Technology are excellent. Graduates are employed by architectural engineering firms, construction firms, state and local highway departments, and mining companies.

ENGINEERING TECHNOLOGY  
(Electrical)  
College of Engineering and Technology  
(Bachelor of Science)

Mr. Timothy Ziegler  
Telephone - 618-536-3396  
Technology Bldg., Room D105

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the technician and the engineer at the end of the spectrum closest to the engineer.

All curricula in Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. These include the Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology curricula.

The EET program is designed for students interested in careers in electronics, manufacturing, power generation, communication industries, and computer technologies. Students study electrical circuits, logic design, communications, microprocessors, and microcomputers. Other courses prepare them for participation in the planning and installation of power distribution systems and the operation and maintenance of complex electrical systems.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Biological Science	3	-
CHEM 115	Chemistry <sup>1</sup>	-	3
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-E	Human Health and Well Being (select)	2	-
GE-D 153	Speech	-	3
MATH 109	Trigonometry <sup>1</sup>	-	3
MATH 108	College Algebra <sup>1</sup>	3	-
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-C	Humanities (select)	-	3
GE-D 118	Technical Writing	3	-
ET 245a	Electrical Systems for Industry	-	3
ET 238	Digital Electronics	3	3
MATH 150	Calculus I	4	-
MATH 250	Calculus II	-	4
PHYS 203a,b & 253a,b	College Physics and Lab <sup>1</sup>	4	4
ENGR 222	Computational Methods	2	-
		<u>16</u>	<u>15</u>

<sup>1</sup>Substitutes for General Education.

Engineering Technology As A Major with a specialization in Electrical Engineering Technology.

To remain in the College, students are subject to the requirements of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering technology used in determining the major grade point averages are courses with the prefix ET. This is part of the college's Retention Policy.

A minor is not required. Foreign language is not required.

For the Bachelor's degree the requirements are: 28 semester hours of mathematics and basic science; 30 semester hours of communications, humanities, and social studies; 67 semester hours of required and elective technology courses; and seven semester hours of specified electives. A minimum of 30 semester hours of Engineering Technology courses must be taken in residence of SIU.

Career and Employment Opportunities in EET.

Employment opportunities for graduates with B.S. degrees in Electrical Engineering Technology are excellent. Graduates are employed in the communications industries, electronic and electrical industries; by transportation industries and consulting firms; in the power and energy industries, in machinery manufacturing companies, and in many other areas.



ENGINEERING TECHNOLOGY  
(Mechanical)  
College of Engineering and Technology  
(Bachelor of Science)

Mr. Timothy Ziegler  
Telephone - 618-536-3396  
Technology Bldg, Room D105

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the technician and the engineer at the end of the spectrum closest to the engineer.

All curricula in Engineering Technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. These include the Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology curricula.

The MET program is designed to prepare graduates for a career in power and manufacturing industries. Graduates are provided with a diverse background in several mechanical technologies, focusing on such areas as fluid power, thermal science, computer-aided drawing, mechanical design technology, and mechanical aspects of manufacturing systems.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
CHEM 115	Chemistry <sup>1</sup>	-	3
GE-B	Social Science (select)	3	3
GE-D 101	English Composition	3	-
GE-E	Human Health and Well Being (select)	2	-
GE-D 118	Technical Report Writing	-	2
ET 103,104	Engineering Drawing I,II	3	3
MATH 111	College Algebra and Trigonometry <sup>1</sup>	5	-
MATH 150	Calculus I	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Biological Science	-	3
GE-C	Humanities (select)	-	3
GE-D 153	Public Speaking	3	-
ET 245a	Electrical Systems for Industry	-	4
ET 260a,b	Principles of Mechanics, Statics & Dynamics	3	3
MATH 250	Calculus II	4	-
PHYS 203a,b & 253a,b	College Physics and Lab <sup>1</sup>	4	4
ENGR 222	Computational Methods	<u>2</u>	-
		<u>16</u>	<u>17</u>

<sup>1</sup>Substitutes for General Education.

Engineering Technology As A Major with a specialization in Mechanical Engineering Technology.

To remain in the College, students are subject to the requirements of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering technology used in determining the major grade point averages are courses with the prefix ET. This is part of the college's Retention Policy.

A minor is not required. Foreign language is not required.

For the Bachelor's degree in MET the requirements are: 27 semester hours of mathematics and basic science; 30 semester hours of communications, humanities, and social studies; 67 semester hours of required and elective technology courses. A minimum of 30 semester hours of Engineering Technology courses must be taken in residence of SIU.

Career and Employment Opportunities in MET.

Employment opportunities for graduates with B.S. degrees in Mechanical Engineering Technology are excellent. Graduates are employed by electric utilities, manufacturing firms, architectural/engineering firms, and other industries involving mechanical products or equipment.

The English Education major is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and world literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching at the secondary level, graduate study, or positions requiring effective communication of ideas.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 212 or 301	American Government or U.S. History	3	-
GE-B 202	Introduction to Psychology	-	3
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 117	Expository Writing	-	2
GE-E	Human Health and Well Being	2	-
Electives <sup>3</sup>		<u>2</u>	<u>4</u>
		16	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-C 330	Classical Mythology	-	3
GE-D 153	Public Speaking	3	-
GE-E 201	Healthful Living	2	-
ENG 209	Introduction to Forms of Literature	3	-
Electives <sup>3</sup>		<u>5</u>	<u>6</u>
		16	15

<sup>1</sup>See also the program under the College of Liberal Arts.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup>Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) they may select a minor.

#### In Addition

GPA 2.50 minimum for Teacher Education Program.

The following specific General Education courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics, or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

## ENGLISH

(General)

(Pre-Graduate Study)

(Preprofessional)

College of Liberal Arts

(Bachelor of Arts)

The general background in English is designed for the student who desires a broadly based flexible education leading to a Bachelor of Arts degree with a concentration in English, American and world literatures, including study in the various forms and periods of literature. This specialization is preparatory for graduate study and for occupations placing more than usual emphasis upon effective communication and organization of ideas (e.g., journalism, publishing).

If you have an excellent undergraduate record, a taste for literary analysis and criticism, and a desire to teach young adults rather than adolescents, you might want to consider college teaching as a career. This specialization, which allows a great deal of flexibility in choosing upper-division courses, is specifically designed for the student planning to attend graduate school. The program is designed to give the student a thorough background in composition, language, and literature, both contemporary and historic.

The preprofessional specialization in English is designed for the student who wants to write clearly and effectively and to read with greater understanding. In its emphasis upon language and communication, this program may be particularly attractive to pre-law students. Surveys also show that the English major's verbal abilities are highly desirable in business and government. Courses in literature are included to refine the student's awareness of language, capacity for analytic thinking, and understanding of human behavior.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C 330	Classical Mythology <sup>2</sup>	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>3</sup>	4	4
ENG	English Literature <sup>2</sup>	-	3
ENG	American Literature <sup>2</sup>	3	-
MATH or CS	Math or Computer Science <sup>4</sup>	-	3
Elective <sup>5</sup>		3	4
		<u>16</u>	<u>14</u>

<sup>1</sup>See General Education for the Transfer Student.

<sup>2</sup>Required by the major.

<sup>3</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>5</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

### English As A Major

A major goal of general education, pre-graduate study and preprofessional specializations is to educate students to write clearly and effectively, to read precisely with insight and understanding and to know the history, the artistry, and the humane values of our linguistic and literary heritage. Students who wish to declare English as a concentration should consult the department's director of undergraduate programs as soon as they know they will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU. Any of the English options may be modified by entry into the departmental honors program.

Representative First Job Titles: Customer Services Personnel, Publications Personnel, Executive Secretary, Copywriter, Correspondent, Critical Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Interpreter.



ENGLISH  
(Teacher Education)\*  
(Bachelor of Arts)

Dr. John M. Howell  
Chairperson  
Telephone - 618-453-5321  
Faner 2370

The major in English may be pursued through the College of Liberal Arts or the College of Education if you are considering teaching English in secondary schools as a profession. The program is designed to give the student a thorough background in composition, language, and literature. The various forms of English, American and continental literature, contemporary and historic, are studied. The undergraduate major is preparatory for teaching, graduate study, or positions requiring effective communication of ideas.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science	3	-
GE-B 202	Introduction to Psychology <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101 & 117			
118 or 119	English Composition and Writing (select) <sup>1,2</sup>	3	2
GE-D 107	Intermediate Algebra	-	3
GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being--activity (select) <sup>1,2</sup>	-	2
GE-E 201	Healthful Living <sup>2</sup>	2	-
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 212 or 301	Intro to Am. Gov't or U.S. History <sup>2</sup>	3	-
GE-A	Science (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>3</sup>	4	4
ENG	English Literature <sup>4</sup>	-	3
ENG	American Literature <sup>4</sup>	3	-
MATH OR CS	or Computer Science <sup>5</sup>	-	3
Elective		3	4
		<u>16</u>	<u>14</u>

\*See also the program under the College of Education.

<sup>1</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup> Required for teacher certification.

<sup>3</sup> Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit and three hours may be used to complete the thirty hours which are required from GE-A, GE-B, or GE-C.

<sup>4</sup> Required by the major.

<sup>5</sup> One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

English As A Major

Students who wish to declare English as a concentration should consult the department's director of undergraduate programs as soon as they know they will major in English. If possible, transfer students should contact a departmental advisor before their first registration at SIU.

Students interested in this program should make themselves aware of the requirements for entering the Teacher Education Program, explained elsewhere in this text. The Department of English requires a 2.50 GPA in the major and successful ('C' or better) completion of English 300, Introduction to Language Analysis, for recommendation to Unconditional Status in the Teacher Education program.

Any of the English options may be modified by entry into the departmental honors program.

Students who wish to pursue and refine an interest in literature and language through their creative abilities may choose this specialization. The equivalent of seven courses, beyond the core curriculum required of all English majors, are offered on-campus, culminating in a senior writing project--a directed written project such as a collection of short stories or poems, a novel or a play. All instructors of these courses are people who have published their own creative writing and the major thrust of the work will be toward publication. An alternative to the senior project may be an internship in a publishing firm if appropriate arrangements can be made.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C 330	Classical Mythology <sup>2</sup>	3	-
GE-D 101, 119	English Composition and Creative Writing <sup>2</sup>	3	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	<u>2</u>	<u>2</u>
		14	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>3</sup>	4	4
ENG 281,282,283	Beginning Fiction, Poetry, Drama <sup>2</sup>	3	3
MATH or CS	Math or Computer Science <sup>4</sup>	-	3
Elective <sup>5</sup>		<u>3</u>	<u>6</u>
		16	16

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Required by the major. The student should select two courses from 281, 282, and 283.

<sup>3</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>5</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

#### English As A Major

Students interested in general writing and creative writing are strongly urged to confer with the director of undergraduate programs in English as soon as possible. The unique design of this specialization requires a great deal of advisement and consultation in order to insure that students go through the proper sequence of courses. If possible, transfer students should contact a departmental advisor before their first registration at SIU.

Any of the English options may be modified by entry into the departmental honors program.

Representative First Job Titles: Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

## FINANCE

(Financial Management Option)  
(Financial Institutions Option)  
College of Business and Administration  
(Bachelor of Science)

Dr. Iqbal Mathur, Chairperson  
Telephone - 618-453-2459  
Henry J. Rehn Hall, Room 120

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the central decisions of research, engineering, production and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interest of the students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well Being (select) <sup>1</sup>	3 (2)	-
GE-C	Humanities (select) <sup>1</sup>	-	3
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications <sup>2</sup>	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or	Finite Mathematics and Algebra or Finite Mathematics		
139-3		3 (5)	-
		14-16	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C-3 or	Humanities (select) <sup>1</sup> or Human Health		
GE-E-2	and Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C	General Education Electives	-	3
*ACCT 220, 230	Financial, Managerial Accounting	3	3
*CS 212 or	Intro. to Computer Programming (Pascal) or		
EDP 217	Computing for Business Admin. (Fortran)	-	3
*MATH 117 or	Finite Mathematics and Calculus or Short		
140-4	Course in Calculus	4 (5)	-
*ECON 214, 215	Economics, Macro and Micro <sup>3</sup>	3	3
		14-16	15

\*Required course for a major in Finance.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>MGT 202 substitutes for GE-D 118.

<sup>3</sup>ECON 214 or 215 counts toward GE-B credit.

### Finance As A Major

Neither minor nor foreign language required.

Graduate degree available: MBA, Masters in Accountancy (M.Acc.), DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

See College of Business and Administration listing for their retention policy and the 40% rule.

Representative First Job Titles: Internal Auditor, Finance Administrator, Financial Analyst, Trust Administrator, Wage-Salary Administrator, Systems Analyst, Inventory Controller, Credit Analyst, Investment Analyst, Operations Research Analyst, Budget Administrator, Consumer Researcher, Controller, Credit Manager, Finance Officer, Financial Management Intern, Bursar Assistant (College), Grant Coordinator (College), Assistant Fiscal Officer, Assistant to the Paymaster, Payroll and Assignment Supervisor, Assistant to the Director of Finance, Head Cashier, Financial Planning Agent, Loan Administrator.



The Division of Advanced Technical Studies in the School of Technical Careers offers a Bachelor of Science in Technical Careers degree. The Bachelor of Science in Technical Careers degree is designed to provide technically-oriented programs of study which are made up of required core courses, program major requirements, approved major electives, approved technical electives, and SIU general education requirements.

Students who meet the University's baccalaureate admission requirements are eligible for admission. Transfer students must have a cumulative 2.0 GPA or better, based on SIU coursework, to enter.

A minimum of 30 semester hours in program core and major courses must be taken with SIU, with at least 24 of these hours taken after admission to the program. Students must complete all coursework in the program core and major requirements and elective areas with a 2.0 GPA or better. Additionally, students must fulfill all University requirements including general education, total hour requirements, residency requirements, and grade point average requirements.

Qualified students may be admitted to the Capstone option. This option reduces the number of hours required in general education from 45 to 30. Graduates of two-year occupational programs are encouraged to investigate and pursue the Capstone option. Students holding associate degrees (or equivalent certification) of at least 60 semester hours in non-baccalaureate programs with a minimum grade point average of 2.25 are eligible. Qualified students can fulfill the Bachelor of Science in Technical Careers degree requirements by completing 60 additional semester hours of work approved by a Capstone advisor.

General education requirements may be satisfied by completing courses at any accredited institution of higher education or by credit received through CLEP, USAFI, DANTES, or proficiency examinations. Credit for health and physical education will be awarded for 12 or more months of military service.

Provision is made for recognizing many forms of previous educational, military, and occupational experience for credit toward the degree. Credit is established by departmental evaluation. In addition, field internships and independent study opportunities are available upon approval by the student's advisor.

Admission to the Bachelor of Science in Technical Careers program does not imply admission to any STC associate degree program.

Fire Science Management Major (off-campus only)

This major is designed to provide advanced practical coursework in the areas of management and supervision. It is designed primarily for students who hold or are nearing completion of the Associate in Applied Science degree or its equivalent in a fire science-related field from a technical institute or community college. This major is presently offered only at off-campus sites.

Many graduates from the major are employed in supervisory and management positions in the fire service, insurance industry, fire equipment manufacturing industry, and related fields.

General Education Requirements	45
Requirements for Major	48
Core Requirements: ATS 364, 416, and two of the following: ATS 332, 383, 421	12
Fire Science Management Major Requirements: 15 hours selected from ATS 387, 402, 412, POLS 340, 443, IT 465	15
12 hours of internship, independent study, or approved equivalent	12
Fire Science Management Major Electives: 9 hours approved by advisor	9
Electives	<u>27</u>
TOTAL	120

## FOOD AND NUTRITION

(Dietetics)

Department of Animal Industries

School of Agriculture

(Bachelor of Science)

Dr. A.W. Young, Chairperson

Telephone - 618-453-2329

Agriculture Building, Rm. 127

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and community organizations. They meet the academic requirements of the American Dietetics Association.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology <sup>1</sup>	3	-
GE-B 104 or 108	The Human Experience: Anthropology or Sociological Perspective <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 118 or 119	Technical Report Writing or Creative Writing <sup>1</sup>	-	2
GE-D 107	Intermediate Algebra <sup>1</sup>	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	-
F&N 100	Fundamentals of Nutrition	-	3
EDP 107	Electronic Data Processing Concepts	-	3
		<u>16</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
GE-B 211	Contemporary Economics <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-A, B, C	(select) <sup>2</sup>	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	1
CHEM 140a,b	Chemistry <sup>3</sup>	4	4
CIM 237	Early Child Development I	3	-
MICR 301	Principles of Microbiology	-	4
		<u>15</u>	<u>17</u>

<sup>1</sup>Required General Education courses.

<sup>2</sup>Refer to section on General Education for the Transfer Student.

<sup>3</sup>Chemistry 140a counts as GE-A credit. The chemistry requirement may be met by chemistry 222a,b; 340; 450. This sequence of chemistry is required for the clinical dietetic option.

## Third and Fourth Year

The last two years of a student's program includes courses in nutrition, food service systems, diet therapy, and foods.

## Post-Baccalaureate Preparation

Students in dietetics are required by the American Dietetics Association to complete a post-baccalaureate internship or practicum in addition to their academic work. This requirement allows students to gain applied experiences in the environment of the profession.

Representative First Job Titles: Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Food Service Supervisor, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Dietician, Research for Consulting Firm, Food & Beverage Control Officer, Hospital Dietician.

## FOOD AND NUTRITION

(Food and Lodging Systems  
Management)  
Department of Animal Industries  
School of Agriculture  
(Bachelor of Science)

Dr. A.W. Young, Chairperson  
Telephone - 618-453-2329  
Agriculture Building, Room 127

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private facilities, airlines, industrial feeding, resorts, institutions, hospitals and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology <sup>1</sup>	3	-
GE-B	Social Sciences (select) <sup>2,5</sup>	3	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>2</sup>	3	2
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	1
CHEM 140a	Chemistry <sup>3</sup>	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-A/B/C	Select <sup>2</sup>	2	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	-
ACCT 220, 230	Principles of Accounting I & II	3	3
F&N 100	Fundamentals of Nutrition	3	-
MICR 301	Principles of Microbiology	-	4
PHSL	Physiology <sup>4</sup>	3	-
Electives		-	3
		<u>16</u>	<u>16</u>

<sup>1</sup> Required General Education courses.

<sup>2</sup> Refer to the section General Education for the Transfer Student.

<sup>3</sup> Chemistry 140a counts as GE-A credit.

<sup>4</sup> A course in physiology approved by the department.

<sup>5</sup> Substitute ECON 214 or 215 for GE-B 211.

## Third and Fourth Years

The last two years of a student's program concentrates on courses in quantity food preparation, food service systems, and administrative sciences. Students selecting the food and lodging systems management specialization gain practical experience in a variety of aspects of quantity food production and lodging management. This major stresses the functions of organization and management in the hospitality industry.

Representative First Job Titles: Food Service Supervisor, Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Research for Consulting Firm, Food and Beverage Control Officer.



**FOOD AND NUTRITION**  
 (Food and Nutrition Science)  
 Department of Animal Industries  
 School of Agriculture  
 (Bachelor of Science)

Dr. A.W. Young, Chairperson  
 Telephone 618-453-2329  
 Agriculture Building, Room 127

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition or related disciplines; for research in university, industrial or governmental laboratories; or for educational and promotional work in industry or public health organizations.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology <sup>1</sup>	3	-
GE-B	Social Sciences (select) <sup>2</sup>	3	3
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	1
MATH 108,109	College Algebra and Trigonometry <sup>3</sup>	3	3
PHSL	Physiology <sup>4</sup>	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-A, B, C	(select) <sup>2</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	2
CHEM 222a,b	Introduction to Chemical Principles <sup>5</sup>	4	4
F&N 100	Fundamentals of Nutrition	3	-
MICR 301	Principles of Microbiology	-	4
	Electives	-	<u>3</u>
		17	16

<sup>1</sup>Required General Education courses.

<sup>2</sup>Refer to the section General Education for the Transfer Student.

<sup>3</sup>Math 108 meets the University Math requirements.

<sup>4</sup>A course in physiology approved by the department.

<sup>5</sup>Chemistry 222a counts as GE-A credit.

Third and Fourth Year

The last two years of a student's program concentrate on chemistry, nutrition, and biological sciences. Students in the food and nutrition science specialization gain experience in various research methodologies and develop a working knowledge of the scientific method.

Representative First Job Titles: Food Technologist, Food and Drug Inspector, Food Buyer, Food Industry Technician, Food Products Salesman, Food Processing Technician, Food Service Supervisor, Quality Control Technician, Agricultural Commodities Inspector, Consumer Safety Inspector, Dietician, Research for Consulting Firm, Food & Beverage Control Officer, Hospital Dietitian.

FOREIGN LANGUAGES (TEACHING)

(French, German,  
Spanish)  
College of Education

(Bachelor of Science)

M. Frances Giles  
Coord. of Teacher Ed. Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Helmut Liedloff, Chairperson,  
Foreign Languages  
Telephone - 618-536-5571  
Faner 2166

Major concentrations leading to the Bachelor of Science degree are offered in French, German, Latin, Russian, and Spanish. Courses are also offered in Chinese, Classical Greek, Italian, Portuguese, Serbo-Croatian, and Vietnamese. (Serbo-Croatian and Vietnamese are offered in cooperation with the Department of Linguistics, etc.). Programs offered in foreign languages can be preparatory for graduate study, teaching, or other positions requiring the ability to speak, read, understand, and interpret foreign languages. The federal government provides opportunities for individuals with such skills.

Many graduates with foreign language skills can find interesting opportunities with private industry, foreign news bureaus, airlines, and travel agencies as well. In addition, university and research institute libraries, and social work agencies offer varied work situations for people with foreign language facility.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 301	History of U. S.	3	-
GE-B 202	Introduction to Psychology	-	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 117	Expository Writing	-	2
GE-E	PE Activity <sup>1</sup>	2	-
GE-E 201	Healthful Living	-	2
FL	Elementary French, German, or Spanish	4	-
FL	Continue above	-	5
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	English elective in Humanities (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 153	Public Speaking	-	3
FL	Intermediate French, German, or Spanish	4	4
Elective		2	-
		<u>15</u>	<u>16</u>

<sup>1</sup>Refer to section General Education for the Transfer Student.

Courses required for certification include GE-B 202; GE-B 212 or GE-B 301; GE-D 101; GE-D 117, 118, or 119; GE-D 153; GE-E 100-114 (2 hours); GE-E 201; one additional English course from GE-C, GE-D, or department.

Language As A Major

Students interested in majoring in any of the offered languages should be aware of the requirements for entrance into the Teacher Education Program.

No minor is required. However, minors are available in Chinese, Greek, Latin, East Asian Civilizations, Italian, and Japanese.

Graduate degrees are available.

**FORESTRY**  
(Forest Resources Management Specialization)  
School of Agriculture  
(Bachelor of Science)

Dr. George Weaver, Chairperson  
Telephone - 618-453-3341  
Agriculture Building, Room 184

The Department of Forestry has as its primary goal-to provide an undergraduate program that prepares students for active roles in professional forestry. These roles include positions in public agencies in all levels of government; private firms, especially in the forest industry; and self-employment. The program in forest resources management includes instruction leading to careers in forest management and production, multiple use resource management, and the forest products industries. The specialization is accredited by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week session (Field Study) is required after the junior year to give the student practical field experience.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-A 118	Introductory Zoology	-	4
GE-C	Humanities (Select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
BOT 200	General Botany with Lab <sup>1</sup>	4	-
CHEM 140a & b	Chemistry <sup>1</sup>	4	4
MATH 140	Calculus <sup>1</sup>	-	4
FOR 200	Introduction to Forestry	1	-
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-E	Human Health & Well Being (select) <sup>2</sup>	-	2
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 118	Technical Report Writing	2	-
GE-D 153	Public Speaking	-	3
ABE 204	Agricultural Economics <sup>1</sup>	-	3
BIOL 307	Environmental Biology <sup>1</sup>	3	-
FOR 201	Ecology of North American Forests	3	-
FOR 202	Tree Identification Lab	1	1
MATH 283	Introduction to Applied Statistics	-	3
PLSS 240	Soil Science	4	-
		<u>16</u>	<u>15</u>

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Education for the Transfer Student.

Third and Fourth Years

The last two years of study is concentrated in a series of forestry and related areas which enable the student to develop professional competencies in the management of forest resources. Students gain experience with field applications of professional skills during a five week early summer session immediately following the junior year.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.



FORESTRY  
(Forest Science Specialization)  
School of Agriculture  
(Bachelor of Science)

Dr. George Weaver, Chairperson  
Telephone - 618-453-3341  
Agriculture Building, Room 184

The Department of Forestry has as its primary goal-to provide an undergraduate program that prepares students for active roles in professional forestry. These roles include positions in public agencies in all levels of government; private firms, especially in the forest industry; and self-employment. The forest science option is intended for students who plan to enter a graduate program in forestry upon completion of the baccalaureate program. The student and his or her advisory committee, consisting of two Department of Forestry faculty members, plan an individualized program to meet the student's educational and professional goals. The program of study may be selected from any subject within the competence of the Forestry Department faculty.

Admission to the program is limited to students with a grade point average of 3.0 or above (on a 4.0 = A scale) and the student must maintain a 3.0 or above average to remain in the program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	1
BOT 200	General Botany with Lab <sup>1</sup>	-	4
CHEM 140a & b	Chemistry <sup>1</sup>	4	4
FOR 200	Introduction to Forestry	1	-
MATH 140	Calculus <sup>1</sup>	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	3
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 118	Writing (select) <sup>2</sup>	2	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	2
BIOL 307	Environmental Biology <sup>1</sup>	3	-
FOR 201	Ecology of North American Forests	3	-
FOR 202	Tree Identification Lab	1	1
PLSS 240	Soil Science	-	4
	Elective	-	3-5
		<u>17</u>	<u>16-18</u>

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>To determine what courses may be taken to satisfy general education requirements for this major refer to the section General Education for the Transfer Student.

Third and Fourth Years

There are four additional forestry courses which are required during the third and fourth years to complete the professional forestry core. The remainder of the third and fourth years are elective, selected by the student and his or her committee to satisfy the student's educational and professional goals.

Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

Representative First Job Titles: Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

**FORESTRY**  
(Outdoor Recreation Resource  
Management Specialization)  
School of Agriculture  
(Bachelor of Science)

Dr. George Weaver, Chairperson  
Telephone - 618-453-3341  
Agriculture Building, Room 184

The Department of Forestry has as its primary goal-to provide an undergraduate program that prepares students for active roles in professional forestry. These roles include positions in public agencies in all levels of government; private firms, especially in the forestry industry; and self-employment. The program in outdoor recreation resource management provides interdisciplinary professional training in developing, maintaining and managing forests and wildlands as recreational areas. The specialization is accredited by the Society of American Foresters. The courses offered are among those recommended by the National Recreation and Park Association. A special feature of the outdoor recreation resource management option is the two-week tour through selected sections of the U.S. to study outdoor recreation and park facilities. This tour normally is programmed in the summer following completion of the third year in the program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-B	Social Studies (select) <sup>2</sup>	3	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
BOT 200	General Botany with Lab <sup>1</sup>	4	-
CHEM 140a & b	Chemistry (organic/inorganic) <sup>1</sup>	4	4
FOR 200	Introduction to Forestry	1	-
MATH 140	Calculus <sup>1</sup>	-	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 118	Technical Report Writing	2	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
GE-C 205	Innovation for the Contemporary Environment	3	-
GE-D 153	Public Speaking	-	3
BIOL 307	Environmental Biology <sup>1</sup>	3	-
FOR 201	Ecology of North American Forests	3	-
FOR 202	Tree Identification Lab	1	1
MATH 283	Introduction to Applied Statistics	-	3
PLSS 240	Soil Science	4	-
		<u>16</u>	<u>15</u>

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this major, please refer to the section, General Education for the Transfer Student.

### Third and Fourth Years

Professional and related courses are emphasized during the junior and senior years to develop competence in management of recreational resources of forested environments. A three week summer tour of outdoor recreation facilities is included.

### Forestry As A Major

Available to the Department of Forestry for teaching and research are the following: the Crab-Orchard National Wildlife Refuge; the Shawnee National Forest; the Union State Tree Nursery and Forest; many state parks and conservation areas, and the Kaskaskia Experimental Forest, together comprising several hundred thousand acres of forest land, all in the vicinity of the University. Also accessible for wood utilization teaching and research is a modern wood products plant located at the Vocational-Technical Institute east of Carbondale. The Southern Illinois University Experimental Forest and Giant City State Park provide additional facilities for teaching and research, especially during the spring camp. In addition, 30 staff members of the U. S. Forest Service Carbondale Research Center are affiliated with the Department of Forestry and help to enrich the University's forestry program.

**Representative First Job Titles:** Agricultural Aid, Recreational Resource Planner, Forest Engineer, Silviculture Specialist, Forest Utilization Specialist, Forest Recreation Specialist, Range Manager, Watershed Manager, Wildlife Manager, Forest Products Technologist, Animal Ecologist, Plant Ecologist, Pollution Control Specialist, Forest Conservation Specialist, Public and Environmental Health Forester, Parks Supervisor, Grazing Lands Supervisor, Research Forester, Forest Extension Worker, Timber Manager, Park Ranger, Soil Conservationist, Forest Resources Manager.

## FRENCH<sup>\*</sup>

College of Liberal Arts  
(Bachelor of Arts)

Dr. Helmut Liedloff - Chairperson  
Telephone - 618-536-5571  
Faner Bldg., Room 2166

Programs of study in foreign languages leading to the Bachelor of Arts degree (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish. There is also a special major in East Asian Studies leading to the Bachelor of Arts degree for students who have a professional or occupational interest in Asia. Students wishing to work towards this major are encouraged to take an Asian language.

Students majoring in a foreign language usually begin at the second- or third-year level. The student who has taken two years of one foreign language in high school (or equivalent) has the option to earn proficiency credit through taking a proficiency exam in French, German, Latin, Spanish at the Testing Center, or in Chinese, Greek, Japanese, Russian at the Foreign Languages and Literatures Department. As an alternative or for additional credit, students who can enter at the 200 level or above are encouraged to take a validating course. Students with four years in one foreign language at the high school level are encouraged to continue with that language. Since proficiency credit of up to 16 hours is available, such students are in an advantageous position to complete a double major.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
FR 123a,b	Elementary French <sup>2</sup>	4	4
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
FR 201a,b	Intermediate French <sup>3</sup>	4	4
FR 220a,b	Intermediate French Conversation <sup>4</sup>	2	2
MATH or CS	Math or Computer Science <sup>5</sup>	-	3
		<u>15</u>	<u>15</u>

\*See also Foreign Language Education under the College of Education.

<sup>1</sup>See General Education for the Transfer Student.

<sup>2</sup>This first year of French does not count toward the major.

<sup>3</sup>Required by the major. Students with more than one year of high school French should take at least one substantial course in the French major each semester.

<sup>4</sup>French 220 a,b is recommended but does not usually count towards major or minor requirements.

<sup>5</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

### French As A Major

A major in French consists of 36 semester hours in courses above the 100 level with a minimum of 14 hours on the 300 level (to include 320), 14 hours on the 400 level (may include FL 436), and one literature course at the 300 or 400 level is required. A minor in French consists of 18 semester hours in courses above the 100 level (to include 320). Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.



GEOGRAPHY<sup>1</sup>  
College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Studies  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. David Arey, Chairperson  
Telephone - 618-536-3375  
Faner Building, Room 4520

The Department of Geography provides a comprehensive curriculum to undergraduate students. The Bachelor of Science in Education prepares a student for secondary school teaching.

While students will generally avoid in-depth specialization at the undergraduate level, the program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning resource management, and physical geography as well as in-depth studies in regional courses such as Illinois, United States and Middle and South America.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B 103	Geography of the Human Environment	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>2</sup>	-	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	-
GE-E 201	Healthful Living <sup>2</sup>	-	2
ED 201	The Teacher's Role in Public School Education	1	-
		<u>15</u>	<u>13</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 212 or 301	American Government or History of U.S. <sup>2</sup>	3	-
GE-B 202	Introduction to Psychology	3	-
GE-C	English elective in Humanities (select) <sup>2</sup>	3	-
GE-D 153	Public Speaking <sup>2</sup>	-	3
GEOG 300	Introduction to Geography	-	3
GEOG 302	Physical Geography	-	3
Electives <sup>2,3</sup>		<u>3</u>	<u>6</u>
		<u>15</u>	<u>15</u>

<sup>1</sup>See also the program under the College of Liberal Arts.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. The following specific General Education courses are required for teacher certification (these courses may be completed during the freshman or sophomore years): GE-B 202, Introduction to Psychology; GE-D 212, Introduction to American Government and Politics or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, or 119, Expository, Technical, or Creative Writing; GE-D 153 Public Speaking; GE-E 110-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

<sup>3</sup>Elective hours should be used in the following ways; (1) students may explore areas of interest; (2) they may select a minor.

Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

Climatological and meteorological facilities are maintained by the department and staff who are involved in weather studies and research. The resources are used by students in their climatology and meteorology courses.

Finally, the area of Southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and cultural environments provides excellent conditions for students pursuing in-depth studies in Southern Illinois.

## GEOGRAPHY\*

College of Liberal Arts  
(Bachelor of Arts)  
(Bachelor of Science)

Dr. David Arey - Chairperson  
Telephone - 618-536-3375  
Faner Building, Room 4520

The Department of Geography provides a comprehensive curriculum for undergraduate students. Students may pursue the Bachelor of Arts or the Bachelor of Science degree in Liberal Arts or the Bachelor of Science degree in Education. Programs for the Liberal Arts degree are oriented toward graduate work, environmental, and governmental careers. The Bachelor of Science in the Education degree program prepares a student for secondary school or junior college teaching.

The program offers a breadth of courses in the field of geography. Students experience course work in economic, urban and regional planning, resource management, and physical geography as well as in-depth studies in regional courses covering Illinois, U.S., and Middle and South America.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 103	Geography of the Human Environment (optional)	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
		14	13
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
FL	Foreign Language <sup>2</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GEOG 310	Introductory Cartography <sup>4</sup>	-	3
GEOG 300	Introduction to Geography <sup>3</sup>	3	-
MATH or CS	Math or Computer Science <sup>5</sup>	-	3
Elective		3	-
		16	16

\*See also the program in the College of Education.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>3</sup>Required by the major.

<sup>4</sup>Although Geography 310 is required only for the social/urban planning and the physical environmental systems specializations, it can also be used for the other specializations.

<sup>5</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

## Geography As A Major

The Department of Geography has an abundance of resources to supplement its instructional program. Morris Library contains over 100,000 maps used by geography majors in research and training. The maps include special regional displays as well as topographic maps.

The department also maintains a cartographic laboratory where students obtain training in map construction and preparation. The laboratory is an integral part of geographic research studies as well as spatial studies.

The department maintains the Environmental Simulations Laboratory (ESL) which develops software for computer simulation of environmental problems such as air and water pollution, floods, and earthquakes. The personal computer facilities of the ESL are used extensively for individualized instruction and computer assisted instruction in the classroom.

Finally, the area of southern Illinois provides a natural laboratory for geography students. The diversity in physical landforms and geomorphology, economic and natural resources, and cultural environment provide excellent conditions for students pursuing in-depth studies in southern Illinois.

Representative First Job Titles: Geographer, Researcher, Cartographer, Map Cataloger, Regional Analyst, Photo-Intelligence Specialist, Climatological Analyst, Air Traffic Controller, Map Librarian, Location Analyst, Weather and Climate Analyst, Sales Representative, Planner, Conservation Specialist.



## GEOLOGY

College of Science  
(Bachelor of Science)  
(Bachelor of Arts)

Dr. John E. Utgaard  
Departmental Executive Officer  
Telephone 618-453-3351  
Parkinson Laboratory, Room 102

Geology is the science of the earth. It deals with earth materials, processes and history. Both field and laboratory studies are important aspects of geological work. Employment opportunities for geologists are found within the petroleum, coal and other mining industries, state and federal geological surveys, other minerals-related industries, private and public organizations concerned with the quality and development of water resources, engineering firms, and government agencies concerned with planning, land use, geologic hazards, construction, and land reclamation. Many geologists become teachers at a variety of levels from grade school to college. The Department of Geology at SIU can provide students with sound, broad training in geology.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Sciences (select)	-	3
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository Writing or Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	1	1
CHEM 222 a,b	Introduction to Chemical Principles <sup>1,4</sup>	4	4
GEOL 220	Physical Geology <sup>1</sup>	3	-
GEOL 221	Historical Geology	-	3
MATH 108,109	College Algebra and Trigonometry <sup>1,4</sup>	3	3
		14	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-C	Humanities (select)	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select)	1	1
FL	German, Russian or French recommended <sup>1,4</sup>	4	4
GEOL 310 or	Mineralogy <sup>2</sup> or	4	-
MATH 150	Calculus I <sup>3</sup>	(4)	-
GEOL 474 or	Geomorphology <sup>2</sup> or	-	3
GE-B	Social Sciences (select)	-	(3)
PHYS 203, 253			
or 205, 255	College Physics or University Physics <sup>1,3</sup>	4	4
		16	15

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>If more advanced geology courses such as mineralogy and geomorphology are not offered at your school, take calculus, social studies, humanities or a good botany or zoology course instead. Our program is designed so that a transfer student can easily finish the geology curriculum in two years provided the student has taken most of the specified courses in chemistry, physics, foreign language and mathematics.

<sup>3</sup>If Physics 205 is taken, the student must enroll concurrently (or previously) in Math 150.

<sup>4</sup>Students in the College of Science must take one year of foreign language, one year of math, six semester hours of physical sciences, and six semester hours of biological sciences.

## Third and Fourth Years

The last two years of a student's program allow some concentration on specific professional objectives. Students in the Bachelor of Arts degree program would take geology courses, biology courses, social studies, humanities and a large number of elective courses. Students in the Bachelor of Science degree program would take some additional social studies and humanities, biology courses, required geology courses and geology electives, science or technology electives and free electives. Students are encouraged to take independent field and laboratory research problems in their senior year. SIU is located close to a variety of geologic settings suitable for field research.

## Geology As A Major

Students in geology can work toward a Bachelor of Arts or a Bachelor of Science degree. The Bachelor of Science curriculum is recommended for those planning to pursue graduate studies or a professional career in geology. A summer field course in the Rocky Mountains is required for the B.S. degree and is strongly recommended for the B.A. degree. This course is normally taken between the junior and senior years. The Department of Geology has appreciable holdings of state of the art laboratory and field equipment. Students are permitted to utilize this equipment in courses and are encouraged to use it in independent study projects. With few exceptions, classes for geology majors tend to be small, and students have the opportunity for close contact with the faculty and receive considerable individual attention both within and outside the classroom. The Department assists students in finding suitable graduate programs or jobs in geology and related areas.

Representative First Job Titles: Geologist, Astrogeologist, Cartographer, Environmental Scientist, Economic Geologist, Geochemist, Geological Engineer, Geological Oceanographer, Geological Researcher, Geophysical Exploration Scientist, Geophysicist, Groundwater Geologist, Petroleum Geologist, Photogeologist, Resource Evaluator, Sedimentologist, Stratigrapher, Surveying Geologist, Geomorphologist, Structural Geologist, Product Studies and Testing Geologist, Seismologist, Paleontologist, Laboratory Assistant, Teacher.



Programs of study in foreign languages leading to the Bachelor of Arts degree in the College of Liberal Arts (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish. There is also a special major in East Asian Studies leading to the Bachelor of Arts degree in the College of Liberal Arts for students who have a professional or occupational interest in Asia. Students wishing to work towards this major are encouraged to take an Asian language.

Students majoring in a foreign language usually begin at the second or third-year level. The student who has taken two years of one foreign language in high school (or equivalent) has the option to earn proficiency credit through taking a proficiency exam in French, German, Latin, Spanish at the Testing Center, or in Chinese, Greek, Japanese, Russian at the Foreign Languages and Literatures Department. For additional credit, students with more than two years are encouraged to take a validating course. Students with four years in one foreign language at the high school level are encouraged to continue with that language. Since proficiency credit of up to 16 hours is available, such students are in an advantageous position to complete a double major.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GER 126a,b	Elementary German <sup>2</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
GE-D 107	Intermediate Algebra	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GER 201a,b	Intermediate German <sup>3</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
MATH or CS	Math or Computer Science <sup>4</sup>	-	3
		<u>15</u>	<u>13</u>

\*See also Foreign Language Education under the College of Education.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit. The first year of German does not count on the major.

<sup>3</sup>Required by the major. Students with more than one year of high school German should carry at least one substantial course in the German major each semester.

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

#### German As A Major

A major in German consists of 36 semester hours in courses above the 100 level, to include the basic language sequence and one literature course (300 or 400 level). The student must complete 12 hours on the 300 level (to include 320) and 12 hours on the 400 level, plus 4 hours of electives on the 300 or 400 level. A minor in German consists of 18 semester hours in courses above the 100 level.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Executive Secretary, Copywriter, Reporter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.

HEALTH CARE MANAGEMENT  
School of Technical Careers  
(Bachelor of Science)

Dr. Elaine M. Vitello, Coordinator  
Division of Advanced Technical Studies  
Telephone - 618-536-6682  
STC Building, Room 126

The Division of Advanced Technical Studies (ATS) in the School of Technical Careers offers a bachelor of science degree in health care management (HCM). The health care management major provides coursework and experience across the spectrum of health care supervision and management. Many HCM graduates obtain supervisory and administrative positions in various health and medical care facilities such as hospitals, nursing homes, public health departments, voluntary health agencies, and health care training institutions.

The bachelor of science in health care management allows students who have completed an A.A.S. degree or diploma program to build upon their technical training through a combination of core courses, major requirements, approved major electives, and SIU general education requirements.

The 45 hour general education requirement may be satisfied by completing courses at any accredited college or university, credit received through CLEP, USAFI, DANTES or through proficiency examinations. Students who have completed an A.A.S. degree may be eligible for the Capstone option. This option reduces the hours required in general education from 45 to 30. Students may also receive credit for previous educational, military and occupational experience. Credit is established by departmental evaluation. In addition, field internships and independent study opportunities are available upon approval by the student's faculty advisor.

First Year

GE-A	Science (select)	3	3
GE-B	Social Science (select)	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health & Well Being (select)	2	-
Electives or	Technical Specialization	7	5
		<u>18</u>	<u>17</u>

Second Year

GE-A	Science (select)	3	-
GE-B	Social Science (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 118	Technical Report Writing	-	2
GE-D 152	Interpersonal Communication or		
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
Electives or	Technical Specialization	9	8
		<u>18</u>	<u>18</u>

\*GE Total = 45 hours. See advisor to determine eligibility for Capstone option.

Third and Fourth Years

ATS core courses - 12 hours required.

ATS 364	Work Center Management	3
ATC 416	Applications of Technical Information	3

Two of the following:

ATS 332	Labor Management Problems	3
ATS 383	Data Interpretation	3
ATS 421	Professional Development	3
		<u>12</u>

Health Care Management Specialization Requirements - Minimum 15 hours

ATS 380	Seminar in Health Care Services	3
ATS 381	Health Care Management	3
ATS 382	Health Economics	3
ATS 384	Equipment and Material Management	3
ATS 385	Fiscal Aspects of Health Facilities	3
ATS 388	Legal Aspects of Health Care	3
		<u>15</u>

Health Care Management Specialization Electives - 9 hours.  
Courses must be approved by advisor.

Internship, Independent Study, or approved equivalent - 12 hours.

Approved Career Electives - 27 hours.

TOTAL - 120 hours.

HEALTH EDUCATION  
(Community Health)  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Donald Boydston, Chairperson  
Telephone - 618-453-2777  
Arena, Room 126

The Department of Health Education offers two specializations within the health education major and two programs of minimal professional preparation. The two specializations are:

1. Health education in secondary schools. For those planning to teach or supervise health education in the secondary schools.
2. Community health. For those planning to conduct health education and health promotion activities in non-classroom settings.

The two minimal professional preparations are:

1. Health Education in Secondary Schools. For those certified to teach in Illinois secondary schools who wish minimal preparation to teach health education.
2. Driver Education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field. The Community Health specialization does not lead to teacher certification. The following are recommended courses for this specialization.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1</sup>	-	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
Electives	Including P.E. Activity	<u>2</u>	<u>3</u>
		16	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-	Additional course work from A, B, or C (select) <sup>1</sup>	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-D 107	Intermediate Algebra	-	3
Electives		<u>6</u>	<u>6</u>
		15	15

<sup>1</sup>Refer to the section General Education for the Transfer Student.

Third and Fourth Years

For the remaining years of the degree program, the student will concentrate on specific requirements in health education and related areas.

The community health specialization is also an attractive bachelor's degree alternative for students holding an associate in applied science degree in a health field.



### HEALTH EDUCATION

(Health Education in Secondary Schools)  
College of Education  
(Bachelor of Science)

M. Frances Giles  
Coord. of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Donald Boydston, Chairperson  
Telephone - 618-453-2777  
Arena, Room 126

The Department of Health Education offers two specializations within the health education major and two programs of minimal professional preparation. The two specializations are:

1. Health education in secondary schools. For those planning to teach or supervise health education in the secondary schools.
2. Community health. For those planning to conduct health education and health promotion activities in non-classroom settings.

The two minimal professional preparations are:

1. Health Education in Secondary Schools. For those certified to teach in Illinois secondary schools who wish minimal preparation to teach health education.
2. Driver Education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field. The following are recommended courses for the specialization in Health Education in secondary schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>1,2</sup>	-	3
GE-D 107	Intermediate Algebra	-	3
GE-E 201	Healthful Living <sup>2</sup>	-	2
GE-E	Human Health and Well Being (select) <sup>1,2</sup>	1	-
Electives		2	1
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 301 or 212	History of U.S. or American Government <sup>2</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	English Elective in Humanities (required) <sup>2</sup>	3	-
GE-D 153	Public Speaking <sup>2</sup>	-	3
GE-E	Human Health and Well Being <sup>2</sup>	1	-
Electives		5	7
GE	Additional course from A, B, or C	3	-
		<u>15</u>	<u>16</u>

<sup>1</sup>Refer to the section General Education for the Transfer Student.

<sup>2</sup>The following specific General Education courses listed are required for Teacher's Certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical Report, or Creative Writing; GE-D 153, Public Speaking; GE-E 110-114 (2 hours), Physical Education activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

## HISTORY<sup>1</sup>

College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

The history major consists of 32 semester hours. From this six courses must be evenly distributed over either two or three fields chosen from American, European, or "Third World" history offerings; i.e., either two courses in each of the three fields or three courses in each of two of the three fields. Illinois state certification requires a minimum of eight semester hours of American History. The student must also complete a total of three courses at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing (select) <sup>2</sup>	-	2
GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being--activity	1	-
GE-E 201	Healthful Living	-	2
HIST 205A	History of Western Civilization I	3	-
HIST 300	Origins of Modern America, 1492-1877	-	3
		16	16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 301	Modern America from 1877 to Present	3	-
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-C	English Elective in Humanities (select) <sup>2</sup>	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being--activity	1	-
HIST 205B	History of Western Civilization II	-	3
HIST	Electives	6	6
		16	15

<sup>1</sup>See also the program under the College of Liberal Arts.

<sup>2</sup>Refer to the section General Education for Transfer Students.

### History As A Major

The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics OR GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, 119, Expository, Technical, or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; one additional English course (GE-C, GE-D, or departmental).

## HISTORY\*

College of Liberal Arts  
(Bachelor of Arts)

Dr. Howard W. Allen, Chairperson  
Telephone - 618-453-4391  
Faner, Room 3374

The history major consists of 32 semester hours. From this, six courses must be distributed over either two or three fields chosen from American, European, or "Third World" history offerings; i.e., either two courses in each of the three fields or three courses in two of the three fields. The student must also complete a total of 9 semester hours at the 400 level, and write a research paper prior to graduation.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
HIST 205	Western Civilization <sup>2</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 301	Modern America - from 1877 to the Present <sup>2</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
FL	Foreign Language <sup>3</sup>	4	4
HIST 300	Origins of Modern America, 1492-1877 <sup>2</sup>	3	-
MATH or CS	Math or Computer Science <sup>4</sup>	-	3
Elective <sup>5</sup>		3	3
		<u>16</u>	<u>16</u>

\*See also the program under the College of Education.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Recommended by the major.

<sup>3</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students. However, four of these hours may be used for GE-C credit.

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement.

<sup>5</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

## Third and Fourth Years

The history student has great flexibility in designing a third and fourth year program to meet specific career goals. Minimum requirements demand an additional twenty hours in the major, averaging one or two courses a semester. Additional courses may be devoted to studying some field of history in greater depth, or to developing a strong secondary field or job skill. Examples are computer science, foreign languages, secondary education, or journalism. When possible, transfer students should contact the department prior to their first semester of attendance. Transfer students must earn at least 16 semester hours of history credit at SIU.

## History As A Major

Formerly, people thought that the only thing someone did with a history major was teach. Although that can be a fine career, the fact is that the majority of history majors do not teach. With a background in history many students enter library and archival work, government and diplomatic service or news and special events reporting. Currently, former SIUC history majors occupy positions in institutions ranging from the CIA and Chase-Manhattan Bank, through Sears Roebuck, British Airways, ABC, and Time-Life. The history major is also an excellent preparation for law school and for graduate work in a wide variety of fields.

Representative First Job Titles: Administrative Aide, Legal Assistant, Policy Researcher, Archival Worker, Records Manager, Museum Curator, Library Administrative Assistant, Market Researcher, Needs Analyst, Environmental Historian, Genealogical Researcher, Military Historian, Legislative Research Assistant, Editor or Editorial Assistant, Publishing Sales Representative, Peace Corps Volunteer, Historical Society Director, Newscaster, Budget Analyst, Teacher, Overseas Marketing Assistant, Corporate Archivist.



HOME ECONOMICS EDUCATION  
(Educational Services)  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Phyllis Bubnas, Coordinator  
Telephone - 618-453-3321  
Pulliam Hall, Room 210

This program prepares students for positions in agencies and businesses which provide educational services. Such tasks as developing informational materials, working with individual customers or clients, coordinating conferences and demonstrating products might be included in the job description for such positions.

Teacher certification is not required for this specialization.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 211 or 212	Contemporary Economics <sup>2</sup> or Intro. to American Government and Politics	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-C 101	Introduction to Art <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1</sup>	-	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
GE	Electives	-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 108	The Sociological Perspective <sup>2</sup>	-	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
CIM 227	Marriage and Family Living	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-D 107	Intermediate Algebra	-	3
Electives		6	6
		<u>14 (15)</u>	<u>15</u>

<sup>1</sup>Refer to section General Education for the Transfer Student.

<sup>2</sup>Required by the major.

Home Economics Education As A Major

A minor is not required. Foreign language is not required.

Graduate degrees available.

HOME ECONOMICS EDUCATION  
(Home Economics Extension)  
College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Phyllis Bubnas, Coordinator  
Telephone - 618-453-3321  
Pulliam Hall, Room 210

This program is designed to prepare persons for positions as Home Advisors, 4-H Club Agents or Advisors, and, with further training, extension specialists.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 108	The Sociological Perspective	3	-
GE-B 212 or 301	Introduction to American Government & Politics or U.S. History	-	3
GE-C 101	Introduction to Art	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-E	Human Health and Well Being	-	2
F&N 100	Fundamentals of Nutrition	3	-
CHEM 140a	Chemistry <sup>2</sup>	-	4
VES 320	Home Economics As A Profession	1	-
VES 338a	Clothing Construction	-	2
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 202	Introduction to Psychology	3	-
GE-E 201	Healthful Living	-	2
GE-C	Humanities (select) <sup>1</sup>	3	3
CIM 227	Marriage and Family Living	3	-
CIM 237	Child Development	-	3
VES 336	Survey of Clothing	-	3
F&N 156 or 256	Fundamentals of Foods	3	-
CE FM 331	Human Environment and Living Space	3	3
GE-D 153	Public Speaking	-	-
		<u>15</u>	<u>17</u>

<sup>1</sup>Refer to section General Education for the Transfer Student.

<sup>2</sup>Approved substitute for General Education.

Refer to Undergraduate Catalog for departmental requirements and requirements taught via General Education.

Home Economics Education As A Major

No minor is required. No foreign language required.

Child Development practicum in Nursery school; Home Management practicum; supervised student teaching in an area high school; Field experiences with a Home Economics Extension advisor are available.

Occupational Education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois High Schools.

Graduate degrees available.

HOME ECONOMICS EDUCATION  
(Teacher Certification)  
College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Phyllis Bubnas, Coordinator  
Telephone - 618-453-3321  
Pulliam Hall, Room 210

This program is designed to meet the needs of students desiring to teach home economics in school departments maintained according to the provisions of the federal vocational acts. A vocational home economics certificate requires a bachelor's degree in home economics from an institution and in a course of study approved for teacher training by the Vocational Division of the United States Office of Education and by the State Board for Vocational Education and Rehabilitation. SIU is so approved for training home economics teachers.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 108	The Sociological Perspective	3	-
GE-C 101	Introduction to Art	3	-
GE-C	Humanities (select) <sup>3</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-D 101	English Composition <sup>1</sup>	3	-
GE-D 117 or 118	Technical Report or Expository Writing <sup>1</sup>	-	2
GE-D 153	Public Speaking <sup>1</sup>	-	3
GE-E 201	Healthful Living <sup>1</sup>	-	2
CHEM 140	Chemistry <sup>2</sup>	-	4
F&N 100	Fundamentals of Nutrition	3	-
VES 338	Clothing Construction	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>3</sup>	3	3
GE-B 202	Introduction to Psychology <sup>1</sup>	3	-
GE-B 212	Introduction to American Government & Politics <sup>1</sup>	-	3
GE-C	English Elective in Humanities (select) <sup>1</sup>	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CIM 237	Early Child Development I	-	3
CIM 227	Marriage and Family Living	3	-
CEFM 340	Consumer Problems	3	-
F&N 156 or 256	Fundamentals of Foods	3	-
VES 320	Home Economics as a Profession	-	1
		<u>15</u>	<u>15</u>

<sup>1</sup>The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics or GE-B 301, U.S. History; GE-D 101 English Composition, GE-D 117, 118 or 119, Expository Technical Report or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D, or departmental).

<sup>2</sup>Substitutes for GE-A 106 Chemistry for Non-Science Majors.

<sup>3</sup>Refer to section General Education for the Transfer Student.

Home Economics Education As A Major

No minor required. No foreign language required.

Child Development practicum in nursery school; home management practicum; supervised student teaching in an area high school; field experience with a home economics extension advisor are available.

Occupational education programs are included as well as emphasis on consumer-homemaking so that graduates qualify for the new curricular emphasis in Illinois high schools.

Graduate degrees available.



The Industrial Technology program has as its objective the training of qualified personnel who can develop and direct the manufacture and distribution of products. The program is a balanced curriculum of studies drawn from a variety of disciplines relating to processes, principles of distribution, and concepts of industrial management and human relations. Communication skills, humanities, and social sciences are studied to develop managerial abilities. Knowledge of physical sciences, mathematics, design, and technical skills gained from the program allow the graduate to cope with technical and production problems.

The specialty is designed to provide the necessary education for entry into employment upon completion of the bachelor's degree. Typical courses include robotics, processes, computer aided manufacturing, quality control, motion and time study, resource planning, and safety. Industrial Technology is an available Capstone option.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 106	Chemistry for Non-Science Majors <sup>1</sup>	-	3
GE-B	Social Science (select) (Psychology) <sup>1</sup>	3	3
GE-C	Humanities (select)	3	-
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	2	-
IT 105	Technical Sketching	-	3
MATH 111	Algebra and Trigonometry <sup>2</sup>	5	-
MATH 140	Short course in Calculus	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Science (select)	-	3
GE-C	Humanities (select)	3	-
GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being (select)	-	2
CS 212	Introduction to Business Computing	3	-
IT 208,209	Manufacturing Processes and Lab	3	3
PSYCH 323	Psychology of Employee Relations	3	-
PHYS 203a,b & 253a,b	College Physics and Lab <sup>2</sup>	<u>4</u>	<u>4</u>
		<u>16</u>	<u>15</u>

<sup>1</sup>Recommended, not required.

<sup>2</sup>Substitutes for General Education requirements.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in industrial technology used in determining the grade point averages are courses with the prefix IT.

For transfer students with an Associate of Applied Science degree in an occupational program, the required courses are dependent on the student's previous program. For each specialization (manufacturing and mining) 30 hours in Industrial Technology courses must be taken at SIU Carbondale.

#### Industrial Technology (Manufacturing) As A Major

Community college occupational and technical credit (data processing, electronics technology, management, marketing, mechanical technology, metals technology, plastics, transportation, building construction, architectural drafting to name a few) can be accepted as applicable towards degree requirements. This permits the student to obtain a Bachelor of Science degree in a minimum length of time.

For the bachelor's degree the recommended guidelines are met through the completion of 35 semester hours in the Industrial Technology core, and 49 in the technical specialization.

#### Career Opportunities

Employment opportunities for graduates are excellent which permits a wide range of initial job selectivity and more flexibility for later job promotion or job transfer. Federal statistics show that in the present decade, the need for technologists and related workers will continue. To the technologist, industry offers interesting and rewarding positions with considerable potential for growth and development.

Positions needed in all types of industry are associated with production planning and scheduling, process design, quality control, methods analysis, personnel supervision, material and equipment procurement, facility planning, equipment design, job estimation, technical sales, maintenance supervision, and other manufacturing-related functions.

Representative First Job Titles: Manufacturing Manager, Production Planning and Control, Quality Assurance Specialist, Safety Engineer, Industrial Engineer, First Line Supervisor,

INDUSTRIAL TECHNOLOGY  
(Mining Technology Specialization)  
College of Engineering and Technology  
(Bachelor of Science)

Dr. Dale Besterfield  
Telephone - 618-536-3396  
Technology Bldg., Room D109

#### Industrial Technology (Mining) As A Major

The world-wide energy crisis has created a growing demand for coal and other mining products and the need for technologists and engineers in the mining industry is expected to increase dramatically in the next decade. To help meet this growing demand Southern Illinois University at Carbondale offers courses in mining technology which culminate in a Bachelor of Science degree in Industrial Technology. Industrial Technology is an available Capstone option.

The program is primarily designed to provide a capstone of subject matter for those students completing programs in mining technology or related areas at community colleges or technical institutes. Courses offered at Southern Illinois University at Carbondale include topics such as coal analysis, coal mining problems, labor relations, materials handling, surveying, motion and time study, quality control, underground and surface mining technology, and others.

The required courses are dependent on the student's academic background and work experience. In general, the baccalaureate degree can be obtained in two academic years after completing an associate degree in mining technology or a related field at a community college or technical institute.

#### Career Opportunities

Employment opportunities in the mining industry are available in technical management positions for college educated people with mining experience.

Representative First Job Titles: Production Planning and Control, Safety Engineer, Motion and Time Study Analyst, First Line Supervisor, Operations Planner, Marketing Support Engineer, Manufacturing Engineer, Salary Administrator, Plant Location Engineer.

The interior design major offered by the School of Technical Careers is an architecturally oriented program accredited by the Foundation for Interior Design Education Research (FIDER). The student receives a comprehensive, interdisciplinary education in preparation for designing and administrative positions in the fields of residential, commercial, and contract design. The SIU Interior Design graduate is qualified to practice professionally in private practice, for interior design/space planning firms, for architectural firms as the interior designer or interior design team member, as a facilities planner for corporations, institutions and governmental agencies as well as in industrial design and sales.

In the world of interior design and architecture, the opportunities are more open and exciting than ever before. The vocabulary and pallet of design thinking and execution has never been as expansive as it is today. The need for students versed in the vocabulary of interior design within the context of architecture offers extensive professional opportunities. The program at SIU is a comprehensive four year program that encourages individuality in thinking. To be a good designer, one has to be a creative thinker and willing to look at alternatives of a possible design solution within the parameters of the project requirements which include the program, the budget and the project schedule. In developing the design solution for the client, the student is encouraged to solve the problems creatively. Once the ideas are conceived, it is very important to communicate this information verbally with the selling of one's design concept and graphically, with drawings such as plans, elevations, sections, details, perspectives, axonometric drawings, etc., and illustration such as furniture, lighting, color, materials, and finishes selections. The following is a recommended course of study for undergraduates.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition <sup>1</sup>	3	-
GE-D 117,118,119	Writing (select) <sup>1</sup>	-	2
GE-D 107	Intermediate Algebra	-	3
GE-D 152,153	Speech (select) <sup>1</sup>	-	3
ART 110	Introduction to Drawing <sup>2</sup>	3	-
STC 215a,b	Drafting Graphics <sup>2</sup>	3	3
ID 111	Elements of Interior Design <sup>2</sup>	3	-
ID 112	Principles of Interior Design <sup>2</sup>	-	3
ID 262,363	History of Interior Design I,II	2	2
		<u>14</u>	<u>16</u>
<u>Second Year*</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology <sup>1</sup>	-	3
GE-C 205	Innovation for the Contemporary Environment	3	-
GE	Select from Areas A,B,C,D,E	-	7
ART 207	Survey of Art History	3	-
ID 142	Architectural Detailing <sup>2</sup>	3	-
ID 221	Sketching Concepts <sup>2</sup>	2	-
ID 222	Presentation <sup>2</sup>	3	-
ID 234	Materials and Finishes <sup>2</sup>	-	2
ID 242	Interior Architectural Detailing <sup>2</sup>	-	3
		<u>14</u>	<u>15</u>

<sup>1</sup>Required General Education courses. General Education courses other than those marked '1' are highly recommended for interior design majors.

<sup>2</sup>These courses are required for an Interior Design major. For specific information regarding the acceptability of a major requirement from a community college, you may contact the ID coordinator. A portfolio of work must be presented to, and approved by the ID coordinator for transfer credit.

\*Transfer students should concentrate on General Education courses during the second year since more advanced major courses should be taken at SIU. Because of the large number of laboratory/studio classes in interior design, the community college transfer student who has completed an associate degree may require up to three years additional study to complete the baccalaureate degree.

#### Third and Fourth Years

Education during the third and fourth years consists of design studios and selected courses in advanced interior design and architecture. Special emphasis is given toward departmental requirements and recommended elective courses. Third and fourth year interior design courses include ID 334, 383, 384, 406, 462, 471, 495 and ID studios 391, 392, 493 and 496.



## JOURNALISM

(News Editorial)

(Advertising)

(Photojournalism)

College of Communications and Fine Arts

(Bachelor of Science)

Dr. Vernon A. Stone, Director

Telephone - 618-536-3361

Communications Bldg North Wing

Journalism courses are designed to give thorough professional training in both theory and practice in a number of career areas. These include news-editorial and advertising positions on newspapers magazines, industrial publications, cable communications systems, and other news media; in other advertising careers; and in public relations, media management, photojournalism, teaching, and research.

Undergraduates are urged to enter the School of Journalism immediately in order that they may obtain the advantage of Journalism Advisement. Students may take JRNL 300 during their second semester in the freshman year. Proficiency in typing is required (30 words per minute) to enter the first writing course: JRNL 309 or JRNL 310.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118, 119	Writing (select one) <sup>1</sup>	-	2
GE-D 152, 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	1	1
Elective		3	-
JRNL 300	Mass Media in Modern Society	-	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	1	1
*JRNL 370	Principles of Advertising	3	-
*JRNL 310	Writing for the Mass Media	-	3
Electives		5	2
		<u>15</u>	<u>15</u>

\*Required courses for major in Journalism.

<sup>1</sup> See section on General Education for the Transfer Student.

### Journalism As A Major

In addition to the General Education courses, the academic requirements for a Bachelor of Science Degree in Journalism include 30-34 hours in journalism course work as approved by the School, 26-30 hours of upperclass electives outside the area of journalism, and 15 hours in a minor area approved by the School. The minor must be declared by the time a student has accrued 90 semester hours.

Students at community colleges are encouraged to complete General Education courses and earn electives in areas of interest. It is preferred that students earn credit for courses in journalism skills at SIU.

The School of Journalism is accredited by the professional accrediting agency, the American Council on Education for Journalism and Mass Communications.

The advertising specialization is a broad, yet intensive selection of specialized courses preparing the student to enter a wide variety of fields, including sales, copy writing, production, administration, retailing, and agency work.

The news-editorial specialization allows the student to take the general requirements of this sequence, plus a variety of electives in such areas as: community and suburban newspaper journalism, and magazine journalism.

Photojournalism--This specialization, administered jointly by the School of Journalism and the Department of Cinema and Photography, prepares students to be photographer-reporters, photo editors, and to work in other related positions.

Graduate degrees are available.

Representative First Job Titles: Advertising Agency Account Executive, Advertising Copywriter, Advertising Layout Artist, Advertising Production Director, Advertising Salesperson, Assignment Editor, Cable Communication Coordinator, Copy Editor, Editor, Feature Writer, Graphic Designer, Magazine Production and Design Specialist, Magazine Writer, Media Account Executive, Media Planner, Media Researcher, News Editor, News Photographer, Newsletter Editor, Newspaper Circulation Manager, Photo Editor, Public Affairs Officer, Public Affairs Reporter, Public Information Specialist, Public Relations Representative, Public Opinion Researcher, Reporter, Retail Advertising Director, Sports Reporter, Teacher, Telecommunications Consultant.

LANGUAGE ARTS (ENGLISH AND READING)

College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Billy Dixon, Chairperson  
Telephone - 618-453-2239  
Wham Building, Room 327

A major in language arts (English and reading) is offered through the Department of Curriculum Instruction and Media. The program is designed to meet the needs of students who wish to teach English language arts (including reading) at the junior/middle school level or who wish to teach high school students whose language skills are not up to high school level. The graduate of this program will be qualified to work with the language skills development which is crucial during early and middle adolescence.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B 212 or 301	Introduction to American Government or U.S. History <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 153	Public Speaking <sup>2</sup>	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1,2</sup>	-	2
GE-D 107	Intermediate Algebra	-	3
GE-E 201	Healthful Living <sup>2</sup>	-	2
GE-E Electives	Human Health & Well Being-activity (select) <sup>1,2</sup>	2 2	- 5
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-B 202	Introduction to Psychology <sup>2</sup>	-	3
GE-C 200	Oral Interpretation of Literature <sup>3</sup>	3	-
Electives		6 <u>15</u>	6 <u>15</u>

<sup>1</sup> Refer to the section General Education for the Transfer Student.

<sup>2</sup> The following specific General Education courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GE-B 212, Introduction to American Government and Politics or GE-B 301, U.S. History; GE-B 202, Introduction to Psychology; GE-D 101, English Composition; GE-D 117, 118, or 119, Expository, Technical, or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activity; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

<sup>3</sup> Required for major.

In Addition

2.50 GPA required for Teacher Education Program.

## LAW ENFORCEMENT

School of Technical Careers  
(Associate in Applied Science)

Michael D. Moberly  
Program Coordinator  
Telephone - 618-536-6682  
Faner B, Room 4343

The challenge put to law enforcement education is its ability to apply theoretical aspects of law, criminal behavior and policing to real life situations. The faculty of the law enforcement program meet this challenge by drawing upon their collective work experience in law enforcement to present instructional material and extra-curricular events for students that effectively bridges the gap between the classroom and the real world. Today law enforcement officers must prepare themselves through their educational experiences and training to respond to a variety of situations they may confront during the course of their duties.

Classroom experiences aimed at developing good human relations and communications skills in order to deal with people effectively and to be able to record and communicate facts accurately are important. Good decision making skills are also necessary for police to be able to think logically and quickly when called upon to do so.

The law enforcement program in conjunction with our campus student organization, Professional Law Enforcement Association, sponsors various events during the year to introduce students to a variety of policing and private security issues such as firearms, emergency driving techniques, corrections seminars and tours, crime investigation, suspect/vehicle stop and search techniques, institutional security and numerous guest speakers.

Students can readily receive their degree from this program in two years. Students who want to continue their law enforcement education at SIU may do so by working toward a bachelor of science degree with all course credits being transferred.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 108	Sociological Perspective	3	-
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
LE 103	Introduction to Criminal Justice	3	-
LE 105	Criminal Behavior	3	-
LE 108	Supervision in Criminal Justice	-	3
LE 115	Interpersonal Relations in Criminal Justice	3	-
LE 205	Criminal Investigation	-	3
LE 218	Introduction to Corrections	-	3
Elective		-	3
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-B 212	American Government and Politics	3	-
GE-D 153	Public Speaking	3	-
LE 209, 210	Criminal Law I and II	3	3
LE 221	Police Administration	3	-
LE 395	Internship in Criminal Justice Practice	-	9
LE Elective	Introduction to Security	3	-
LE Elective	Security Survey: Loss Prevention Appl.	-	3
		<u>15</u>	<u>18</u>

During the fourth semester of the program (or during the summer), students will serve an internship in which they work under supervision with a law enforcement agency in Illinois.

Provision is made in the program to accomodate working police officers who wish to attend part-time as well as transfer students.

A minimum of 62 credit hours is required for this program.

Representative First Job Titles: Police Officer, Detective, State Police Officer, Correctional Officer, Private Security Officer, Deputy Sheriff.



The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help the student achieve an awareness of the language systems of the past, an appreciation of modes of communication, and a fundamental understanding of the ever-changing linguistic environment in which he or she lives. Moreover, the analytical models of linguistics have been recognized since the 1930's by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms; education in linguistics methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>2</sup>	4	4
GE-D 101 & 117, 118, or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra <sup>1</sup>	-	3
GE-E	Human Health & Well Being (select) <sup>1</sup>	2	-
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
FL	Foreign Language Second Year <sup>2</sup>	4	4
GE-D	Speech (select) <sup>1</sup>	-	3
GE-E	Human Health & Well Being (select) <sup>1</sup>	2	-
Electives <sup>3</sup>		3	-
MATH or CS	Math or Computer Science <sup>4</sup>	-	3
		<u>15</u>	<u>16</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, see the section, General Education for the Transfer Student.

<sup>2</sup>There is a foreign language requirement for native speakers of English: (1) one year of an uncommon or non-Western language, or (2) two years of any foreign language. If the language in (2) were uncommon or non-Western, satisfying (2) would automatically satisfy (1). Students planning graduate study in linguistics should take three years of foreign language study. Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>3</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to fulfill Liberal Arts requirements (see College of Liberal Arts section).

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

Representative First Job Titles: Visitors' Guide, Writer, Border Patrol, Publications Staff, Archival Worker, Legislative Aide, International Trade Economist, International Banking Specialist, Market Research Analyst, Manufacturer's Representative.

## MANAGEMENT

College of Business and Administration  
(Bachelor of Science)

Dr. Robert Bussom, Chairperson  
Telephone - 618-453-3307  
Henry J. Rehn Hall, Rm 215

Undergraduate students in the Department of Management may select one of three areas of specialization which lead to the Bachelor of Science degree. All programs of study emphasize the development of analytical capabilities and decision making skills for application in a wide variety of managerial settings.

The three specialized areas in which a student can choose a course of study are entrepreneurship, management and decision sciences. All areas are designed to familiarize the student with current concepts and practices that can be used by managers to improve the performance of organizations and their members.

Approximately 20 percent of the total course work required for graduation is devoted to the management specialization. These courses are in addition to the core required of all undergraduates in the College of Business and Administration. Students also are encouraged to extend their specialized academic interests through interdisciplinary course work in such fields as mathematics, computer sciences, sociology, psychology, and other University programs which have an administrative orientation.

Students frequently combine training in another specialty field with a program in management in order to prepare themselves to assume managerial responsibility. While most graduates enter positions in business, many find administrative careers in such fields as aviation, corrections, agriculture, recreation, food services, health, government, and higher education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-C 3 or GE-E 2	Humanities (select) <sup>1</sup> or Human Health and Well Being	3 (2)	-
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications <sup>2</sup>	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or 139-3	Finite Mathematics & Algebra	3 (5)	-
		<u>14-16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C 3 or GE-E 2	Humanities (select) <sup>1</sup> or Human Health and Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C	General Education Electives	-	3
*ACCT 220, 230	Financial, Managerial Accounting	3	3
*CS 212 or EDP 217	Intro. to Computer Programming (Pascal) or Computing for Business Admin. (Fortran)	-	3
*ECON 214, 215	Economics, Macro and Micro <sup>2</sup>	3	3
*MATH 117-5 or 140-4	Finite Mathematics and Calculus or Short Course in Calculus	4 (5)	-
		<u>15-16</u>	<u>15</u>

\*Required course for a major in Management.

<sup>1</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup> MGT 202 substitutes for GE-D 118.

<sup>3</sup> ECON 214 or 215 counts toward GE-B credit.

### Management As A Major

Neither minor nor foreign language required.

Graduate degrees available: MBA, Masters in Accountancy (M.Acc.), DBA.

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

See the College of Business and Administration listing for their retention policy and 40% rule.

The Society for the Advancement of Management in cooperation with the Department of Management annually sponsors Career Day to acquaint students with opportunities in business and government.

Representative First Job Titles: Budget Administrator, Business Operations Analyst, Benefits Analyst, Community Relations Officer, Employee Relations Officer, Employment Interviewing Officer, Labor Relations Officer, Management Analyst, Manpower Planning Officer, Manpower Resources Education Officer, Organization Planner, Placement Assistant, Public Opinion Polls Officer, Public Relations Officer, Recruiting Officer, Wage-Salary Administrator, Workman's Compensation Officer, Budget Examiner, Claims and Benefits Examiner, Contract Negotiator, Credit Union Examiner, Management Representative, Management Supervisor.

## MARKETING

College of Business and Administration  
(Bachelor of Science)

Dr. R. Clifton Andersen  
Telephone - 618-453-4341  
Henry J. Rehn Hall, Room 229

Marketing consists of the performance of those activities associated with the flow of goods and services from producers to consumers and business users. The program is designed to provide the student with an understanding of the role of marketing in an economic system and in a business organization. Emphasis is upon the development of an analytical approach to the creative solution of marketing problems. Courses have been designed into a variety of sequences aimed at meeting the specific needs and the interests of students. These are: (1) general marketing administration, (2) international marketing, (3) industrial marketing, (4) sales administration, (5) promotional administration, (6) physical distribution administration, and (7) retail administration.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
*GE-B 202	Introduction to Psychology	-	3
GE-C 3 or GE-E 2	Humanities (select) <sup>1</sup> or Human Health and Well Being	3 (2)	-
GE-C	Humanities (select) <sup>1</sup>	-	3
*GE-D 101	English Composition	3	-
MGT 202	Administrative Communications	-	3
*MGT 208	Interpretation of Business Data	-	4
*MATH 116-5 or 139-3	Finite Mathematics and Algebra	3 (5) 15 (16)	- 16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-C 3 or GE-E 2	Humanities (select) <sup>1</sup> or Human Health and Well Being (select) <sup>1</sup>	3 (2)	-
GE-A/B/C	General Education Electives	-	3
*ACCT 220, 230	Financial Managerial Accounting	3	3
*CS 212 or EDP 217	Intro. to Computer Programming (Pascal) or Computing for Business Admin. (Fortran)	-	3
*MATH 117-5 or 140-4	Finite Mathematics and Calculus or Short Course in Calculus	4 (5)	-
*ECON 214, 215	Economics, Macro and Micro <sup>2</sup>	3 14-16	3 15

\*Required course for a major in Marketing.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>MGT 202 substitutes for GE-D 118.

<sup>3</sup>ECON 214 or 215 counts toward GE-B credit.

### Marketing As A Major

It is strongly recommended that the courses listed above be completed prior to the junior year. Many of these courses are prerequisites to later requirements.

Neither minor nor foreign language required.

Graduate degrees available: MBA, Masters in Accountancy (M.Acc.), DBA.

The Department is recognized by the American Assembly of Collegiate Schools of Business (AACSB).

Flexibility is available due to a limited number of required courses. Emphasis is on developing a program geared to individual students' interests and background.

See College of Business and Administration listing for their retention policy and the 40% rule.

Representative First Job Titles: Marketing Assistant, Retail Manager, Consumer Marketing Area or Territorial Manager, Commercial/Industrial Marketing Representative, Sales Representative Trainee, Marketing Trainee, Market Analyst, Management Trainee, Food Service Sales Representative, Bond Representative, Benefits Analyst, Budget Accountant, Budget Administrator, Business and Economics Statistician, Business Planner, Controller, Management Analyst, Manufacturer's Representative, Market Research Analyst, Sales Manager, Product Manager, Operations Research Analyst, Credit Manager, Customer Services Officer, Public Relations Officer.



**MATHEMATICS<sup>1</sup>**  
College of Education  
(Bachelor of Science)

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most mathematics students will take an introductory linear algebra course while completing the calculus. Then they will select junior level courses from those in algebraic structures, analysis, number theory, geometry, differential equations, and probability.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B 212 or 301	Introduction to American Government or U.S. History <sup>3</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-D 101	English Composition <sup>3</sup>	3	-
GE-D 117 or 118 or 119	Writing (select) <sup>2,3</sup>	-	2
GE-E 201	Healthful Living <sup>3</sup>	2	-
MATH 111	Pre-Calculus <sup>4</sup>	5	-
MATH 150	Calculus I	-	4
CS 202	Introduction to Computer Programming	-	3
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-B 202	Introduction to Psychology <sup>3</sup>	3	-
GE-C	English elective in Humanities (select) <sup>2,3</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-D 153	Public Speaking <sup>3</sup>	-	3
GE-E	P.E. Activity <sup>3</sup>	2	-
MATH 221	Introduction to Linear Algebra	-	3
MATH 250	Calculus II	4	-
MATH	Elective	-	3
		<u>16</u>	<u>15</u>

<sup>1</sup>See also the program under the College of Liberal Arts. The College of Science also offers a B.S. in Mathematics.

<sup>2</sup>Refer to the section General Education for the Transfer Student.

<sup>3</sup>The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics OR GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, or 119, Expository, Technical, or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; One additional English course (GE-C, GE-D, or departmental); Math 111, Pre-Calculus.

<sup>4</sup>Approved substitute for GE-D Math. Math 111 is not a requirement for the math major. Students may start with Math 150.

Mathematics As A Major

Foreign language is not required for the Bachelor of Science degree in Education.

It is recommended that the following courses be completed during the first two years of the student's study: Math 111, 150, 250, 251, 221, Computer Science 202.

For specific major requirements see the Undergraduate Catalog.

Freshmen with four years of high school mathematics that includes trigonometry should start their university mathematics with the calculus sequence. Those lacking this high school mathematics background may wish to take a course in trigonometry, or in college algebra and trigonometry, before starting the calculus sequence. Mathematics majors at the junior and senior level may choose from a wide variety of mathematics courses to meet the needs of their individual occupational objectives.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
MATH 150 & 250	Calculus I and II <sup>2</sup>	4	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 152 or 153	Interpersonal Communications or Public Speaking	3	-
MATH 251	Calculus III <sup>2</sup>	3	-
MATH 221	Introduction to Linear Algebra <sup>2</sup>	-	3
MATH 319	Introduction to Abstract Algebra	-	3
CS 202	Introduction to Computer Programming <sup>2</sup>	3	-
FL	Foreign Language <sup>3</sup>	4	4
		<u>16</u>	<u>16</u>

\*See also the programs (B.S.) under the College of Education and the College of Science.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Required by major.

<sup>3</sup>Math majors must complete eight semester hours of one foreign language. Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

#### Mathematics As A Major

Students majoring in mathematics through the College of Liberal Arts must satisfy College requirements (see College of Liberal Arts section). Students must earn a grade of 'C' or higher in mathematics courses numbered 150 or above. Also, math majors must complete six additional hours in an approved area for a secondary concentration.

Graduates of this program find employment in various organizations which rely on the use of mathematical principle and procedures in phases of their operation or they often take teaching positions. Many industries that hire mathematicians are engineering or science oriented such as aircraft and missile, chemical, electrical equipment, fabricated metals, and petroleum industries; but also employers are hiring mathematicians in business and economic related positions to help with managerial decisions. Excellent career opportunities exist in statistical and actuarial work launched from undergraduate programs, and graduates are highly valued in MBA (Master of Business Administration) programs.

The Department of Mathematics has graduate programs at both the Master's and Doctoral levels.

Representative First Job Titles: Junior Systems Analyst, Actuary (or Actuarial Assistant), Mathematician, Operations Research Analyst, Statistician, Biometrician, Demographer, Computing Analyst, Research Mathematician, Mathematical Programmer, Technical Sales Representative.

**MATHEMATICS\***  
College of Science  
(Bachelor of Science)

Dr. Ron Kirk - Chairperson  
Dr. John Hooker  
Undergraduate Program Director  
Telephone - 618-453-5302  
Neckers Building, Room 360

A standard college algebra and trigonometry course is available as one course or as separate courses to incoming freshmen to prepare them for a three semester sequence in calculus and analytic geometry. Most students will take an introductory linear algebra course and a computer programming course during their first two years. Then they will select junior level courses appropriate to their interests and career goals.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
Dept. Level	Biological Sciences <sup>1</sup>	3	3
CS 202	Computer Programming	-	3
GE-B	Social Science (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>2</sup>	3	2
MATH 150	Calculus I	4	-
MATH 250	Calculus II	-	4
GE-E	Human Health & Well Being (select) <sup>2</sup>	1	1
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
Dept. Level	Physical Sciences <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
FL	Foreign Language <sup>3</sup>	4	4
MATH 221	Linear Algebra	-	3
MATH 251	Calculus II	3	-
		<u>16</u>	<u>15</u>

\*See also the programs (B.A. and B.S.) under College of Liberal Arts and College of Education.

<sup>1</sup>The College of Science requires six semester hours in departmental (not GE-A) biological sciences, and six semester hours in departmental (not GE-A) physical sciences. Choosing from the following will also meet General Education requirements: Biology 306, 307, 308, 309; Chemistry 115, 140, 222; Geology 220; Physics 203, 205, 253, 255. Physics 205, 255 are recommended for mathematics majors. See list of approved substitutions for specifics.

<sup>2</sup>See section on General Education for the transfer student.

<sup>3</sup>The College of Science requires one year (8 semester hours) of foreign language. French, German, or Russian is recommended. One semester of foreign language will substitute as GE-C humanities credit.

Mathematics As A Major

The majority of graduates with bachelor's and master's degrees in mathematics enter non-teaching careers in such fields as aerospace, electronics, communications, business, insurance, banking, and government. Prospects are excellent for statisticians and for actuaries in the insurance and pension fields. Supplementary work in computer science is needed for most business and industrial careers. A minor is recommended in some field in which mathematics is applicable, such as science, economics, business, or computer science. This is also an excellent time to prepare for a career in secondary education, since high school mathematics teachers are in high demand, and teaching salaries have increased. Mathematics is a good major choice for pre-law and pre-med students and as preparation for a Master's of Business Administration degree.

The Department of Mathematics has master's and Ph.D. degree programs.

Students must earn a grade of C or better in each mathematics course to be counted toward major requirements.

Honors work available.

Representative First Job Titles: Junior Systems Analyst, Actuary (or Actuarial Assistant), Cryptographer, Mathematician, Operations Research Analyst, Statistician, Biometrician, Demographer, Inventory Controller, Investment Analyst, Wage-Salary Administrator, Computing Analyst, Information Scientist, Accounting Trainee, Mathematical Programmer, Methods Analyst, Technical Sales Representative, Market Analyst.



See also: civil engineering, electrical engineering, engineering: engineering mechanics option, engineering: thermal and environmental option, and mining engineering.

Mechanical engineering is a broad-based engineering discipline. Mathematics, basic science, economics, and design principles are utilized to produce products and systems for the benefit of mankind.

The four year undergraduate program provides a balance of experience in thermal and mechanical systems and the opportunity for specialized design courses.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1,2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		<u>17</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics)	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics and Lab <sup>3</sup>	4	4
		<u>17</u>	<u>16</u>

<sup>1</sup>See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup>Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup>Substitutes for General Education requirements.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the College's Retention Policy.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

Representative First Job Titles: Mechanical Engineer, Plant Engineer, Product Development and Design Engineer, Product Application and Test Engineer, Sales, Patent Engineer, Sales Engineer, Quality Assurance Specialist.

Microbiology deals with the study of micro-organisms, including bacteria, viruses, rickettsiae, protozoa, fungi, and yeasts, examining their morphology, classification, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including man. The following program of study prepares one for graduate study leading to advanced degrees or for laboratory or teaching positions after the bachelor's degree.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry and industrial processes are available.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
FL	Foreign Language <sup>1,3</sup>	4	4
CHEM 222a,b	Introduction to Chemical Principles <sup>1,3</sup>	4	4
MATH 110a,b			
or 111	College Algebra and Trigonometry <sup>1,3</sup>	3	3
GE-A 115	Biology	-	3
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-E	Human Health and Well Being	1	1
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
MICR 301	Principles of Microbiology	4	-
MICR 302	Molecular Biology	-	3
BIOL 305	Genetics-Classical & Molecular	3	-
BIOL	Biology (select) <sup>1,2</sup>	-	3
CHEM 344, 345,	Organic Chemistry and Lab	6	5
and 346, 347			
PHYS 203a,b	College Physics and Lab	4	4
and 253a,b			
GE-E	Human Health and Well Being (select)	-	1
		<u>17</u>	<u>16</u>

<sup>1</sup> Approved substitutes for General Education.

<sup>2</sup> Any one of Biology 306, 307, 308, 309.

<sup>3</sup> Students in the College of Science must take one year of foreign language, one year of math, six semester hours of physical sciences, and six semester hours of biological sciences.

### Third and Fourth Years

The student fulfills remaining General Education requirements, and chooses electives in microbiology to match his or her professional interests. The Department of Microbiology offers specialty courses in microbial genetics, microbial physiology/biochemistry, medical microbiology, immunology and bacterial diversity.

### Microbiology As A Major

Opportunities for microbiologists with four years of university training are numerous and varied. Careers are available in such fields as 1) pharmaceutical industries involving the discovery and production of antibiotics and other therapeutic drugs, and the discovery, production and design of vaccines possibly effective even against cancer; 2) the food and beverage industries in areas such as research and development, microbial fermentations, and quality control; 3) clinical, veterinary and public health and university laboratories; 4) the exciting field of recombinant DNA and other areas of biotechnology based on microbiology. Biotechnology has applications in industry and pure research to make vaccines, hormones, and alter the genetic constitution of plants and animals. Teaching and research opportunities exist at the university level for the holder of the doctoral degree. A microbiologist planning a teaching career at the secondary school level should acquire a broad background in general biology. In addition to the academic career, high salaried positions are available in many local, state and federal agencies as well as in industry for the microbiologist with a good capacity for pure or applied research.

Representative First Job Titles: Biostatistician, Embryologist, Genetics Research Technician, Serologist, Histologist, Cytologist, Parasitologist, Virologist, Microbiology Researcher, Wine Chemist, Fishery Bacteriologist, Quality Control Specialist, Biological Photography Staff, Manufacturer's Representative.

## MINING ENGINEERING

College of Engineering and Technology  
(Bachelor of Science)

Dr. Yoginder P. Chugh  
Telephone - 618-536-6637  
Technology Building, Room D31

See also: civil engineering, electrical engineering, engineering: engineering mechanics option, engineering: thermal and environmental option, and mechanical engineering.

Mining engineers engage in planning, design, development and management of surface and underground mining operations for exploitation of the earth's mineral deposits. The mining engineering program prepares graduates to meet the challenges of the mining industry. Coursework in the program includes such areas as surface and underground mining systems, mine ventilation, ground control and rock mechanics, mineral and coal processing, material handling systems, mineral economics, mine health and safety engineering, operations research, and computer-aided mine design. Facilities include modern, well-equipped rock mechanics, mine ventilation and mineral processing laboratories.

First Year		Fall	Spring
ENGR 100	Introduction to Engineering	3	-
GE-B	Social Sciences (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	3	3
GE-D 101 & 118	English Comp. & Technical Report Writing <sup>1,2</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
CHEM 222a,c	Intro. to Chemical Principles and Lab <sup>3</sup>	4	3
MATH 150, 250	Calculus I & II <sup>3</sup>	4	4
		17	17
Second Year		Fall	Spring
ENGR 222	Computational Methods for Engineers	2	-
ENGR 260a,b	Mechanics of Rigid Bodies (Statics&Dynamics)	2	3
GE-A 115	Introductory Biology <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>1,2</sup>	-	3
GE-C	Humanities (select) <sup>1,2</sup>	-	3
GE-D 153	Public Speaking <sup>1,2</sup>	3	-
MATH 251, 305	Calculus III and Differential Equations I	3	3
PHYS 205, 255	University Physics and Lab <sup>3</sup>	4	4
		17	16

<sup>1</sup> See General Education for the Transfer Student. Transfer students without a baccalaureate-oriented associate degree will be required to take some specific general education courses.

<sup>2</sup> Major requirements due to accreditation standards must include sixteen hours of Humanities and Social Studies; six or seven hours of oral and written communications and eighteen hours of basic science.

<sup>3</sup> Substitutes for General Education requirements.

To remain in the College, students are subject to the additional requirement of maintaining a 2.00 accumulative grade point average in all of their major courses. Major courses in engineering used in determining the major grade point averages are courses with the prefix ENGR, CE, EE, EM, ME, and MNGE. This is part of the College's Retention Policy.

Transfer students from community colleges or other institutions should have strong backgrounds in the physical sciences, mathematics, social sciences, and humanities. Students are encouraged to complete specific freshman and sophomore course requirements which include three hours of English Composition, two hours of Technical Writing; three hours of Speech; eight hours of University Physics; seven hours of Chemistry; 11-14 hours of Math, including Calculus; two hours of Analytical Mechanics (Statics); and three hours of Graphics or Introduction to Engineering. Calculus is a prerequisite for most junior-level courses.

### Career and Employment Opportunities

Mining engineers may work in an engineering or management position for mining and exploration and construction companies, equipment manufacturing concerns, research organizations or government agencies. The coursework also provides strong preparation for further study at the graduate level. The average starting salary offered to our graduates compares favorably with national trends.



## MORTUARY SCIENCE AND FUNERAL SERVICE

School of Technical Careers  
(Associate in Applied Science)

Don Hertz  
Program Coordinator  
Telephone - 618-536-6682  
STC - Building, Room 18C

SIU offers the only university affiliated Mortuary Science and Funeral Service program in the State of Illinois.

Licensing and qualification requirements vary from state to state since laws governing the profession are enacted at a state level. Licensure in one state does not assume automatic qualification in another but many state boards have some reciprocal agreements with other states.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B 202	Introduction to Psychology	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Expository, Technical Report, or Creative Writing		2
GE-D 153	Public Speaking	-	3
STC 120	Fiscal Aspects of Technical Careers	-	3
SCR 208	Applied Law	-	3
MS 101	Orientation to Funeral Service	3	-
MS 102	Restorative Art	4	-
MS 108	Funeral Service Psychology	-	3
Elective	Health Education	-	2
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 106	Chemistry for Non-Science Majors	3	-
MS 225a,b	Embalming Theory and Practice	4	4
MS 230	Mortuary Anatomy	4	-
MS 250a,b	Mortuary Management	4	4
MS 256	Introductory Microbiology	-	4
MS 257	Pathology	-	4
		<u>15</u>	<u>16</u>
		<u>Summer</u>	
MS 375a	Internship--Management	4	
MS 375b	Internship--Embalming	4	
MS 380	Funeral Service	2	
		<u>10</u>	

### Mortuary Science As A Major

This program is designed to accommodate high school graduates as well as those who have first attended another college or university. High school graduates will complete the courses as listed above. Students transferring from other schools may receive transfer credits for general education courses. Many transfer students are able to complete the associate degree in a minimum of twelve months.

Students who desire to major in Mortuary Science and Funeral Service will be admitted as provisional majors. The student must then apply for admission to the program. This application can be obtained by writing to the program coordinator.

The program is accredited by the American Board of Funeral Service Education. Graduates are eligible to write the National Board examination as given by the Conference of Funeral Service Examining Boards.

A unique feature of the curriculum is the summer internship. This ten week course, MS 375, takes place at a funeral home where the student is assigned on a full time basis. The purpose is to provide experience in the practical aspects of the profession. Following the internship, students return to campus for a seminar, MS 380, followed by writing the National Board examination and graduation.

Students have their own professional fraternity, Sigma Phi Sigma, with programs and activities planned by the members.

Some students elect to continue their education beyond the associate degree and work toward a baccalaureate degree.

Representative First Job Titles: Funeral Director Trainee, Embalmer Trainee.

MUSIC<sup>1</sup>  
College of Communications and Fine Arts  
(Bachelor of Arts)

Dr. Robert Roubos, Director  
Telephone - 618-536-7505  
Altgeld Hall, Room 105

Charles Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

The Bachelor of Arts program is designed to provide a basis for various part time and musically related careers such as church music, popular music, private applied teaching, and occupations within the field of music industry and communications. Ordinarily, additional study, comparable to the Bachelor of Music curriculums offered in the College of Communications and Fine Arts, is necessary to qualify for a full time professional career in teaching, conducting, composition, or research.

The music major degree program is established in accordance with the published regulations of the National Association of Schools of Music, of which the School of Music is a member.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101, 117	English Composition; Expository Writing	3	2
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	1
*MUS 102	Survey of Music Literature	-	2
*MUS 140	Applied Music (principal instrument)	2	2
*MUS	Major Ensemble (see below)	1	1
		<u>16</u>	<u>17</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-D 152	Interpersonal Communication	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	1
GE-C	Humanities (select) <sup>2</sup>	3	3
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	3
*MUS 240	Applied Music (principal instrument)	2	2
*MUS	Major Ensemble (see below)	1	1
		<u>14</u>	<u>17</u>

\*Required courses for a major in Music.

<sup>1</sup>See also music education program in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 will count toward GE-C requirements.

Third and Fourth Years

After completion of the first year core, each student's program is planned according to individual needs and goals. The Bachelor of Arts in music requires a total of 40 semester hours of music courses.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Church Organist, Folk Music Specialist, Assistant to Music Director, Popular Music Specialist, Dance Band Musician.

**MUSIC<sup>1</sup>**  
 (Instrumental Performance)  
 College of Communications and Fine Arts  
 (Bachelor of Music)

Dr. Robert Roubos, Director  
 Telephone - 618-536-7505  
 Altgeld Hall, Room 105

Charles, Fligel, Advisor  
 Telephone 618-536-7505  
 Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as an instrumentalist and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101, 117	English Composition; Expository Writing	3	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	-
*MUS 140	Applied Music (principal instrument)	2	2
*MUS 030a,b	Piano Class <sup>3</sup>	1	1
*MUS	Major Ensemble (see below)	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-B	Social Sciences (select) <sup>2</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	1
*MUS 240	Applied Music (principal instrument)	4	4
*MUS 030c,d	Class Piano <sup>3</sup>	1	1
*MUS	Major Ensemble (see below)	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Contrapuntal Techniques	-	2
		<u>14</u>	<u>15</u>

\*Required courses for a major in music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup> Music Education is also available in the College of Education.

<sup>2</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 will count toward GE-C requirements.

<sup>3</sup> Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

#### Music As A Major

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Sumphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Classical Music Specialist, Symphony Orchestra Artist, Opera Artist, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Brass Instruments Specialist, Woodwinds Instruments Specialist, Church Organist.



**MUSIC<sup>1</sup>**  
 (Jazz Performance)  
 College of Communications and Fine Arts  
 (Bachelor of Music)

Dr. Robert Roubos, Director  
 Telephone - 618-536-7505  
 Altgeld Hall, Room 105

Charles, Fligel, Advisor  
 Telephone 618-536-7505  
 Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as an instrumentalist and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enroll for and receive two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
*MUS 140	Applied Music (principal instrument)	2	2
*MUS 030	Piano Class <sup>3</sup>	1	1
*MUS	Ensemble	1	1
*MUS 331	Jazz Improvisation	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a	Aural Skills	1	1
*MUS 105a	Basic Harmony	3	3
		<u>14</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-B	Social Sciences (select) <sup>2</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	3	-
*MUS 240	Applied Music (principal instrument)	4	4
*MUS 030c	Piano Class <sup>3</sup>	1	-
*MUS 030d	Piano Class (Jazz section) <sup>3</sup>	-	1
*MUS 331	Jazz Improvisation	1	1
*MUS	Ensemble	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Counterpoint	-	2
		<u>17</u>	<u>15</u>

\*Required courses for a major in music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music Education is also available in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 will count toward GE-C requirements.

<sup>3</sup>Students with piano backgrounds may waive part or all of the piano class requirement, as justified by a proficiency examination.

#### Music As A Major

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Sumphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Jazz Music Specialist, Jazz Band Artist, Jazz Music Conductor, Jazz Soloist, Studio Musician, Private Jazz Instructor, Jazz Composer and/or Arranger, Jazz Historian, and Jazz Theorist.

## MUSIC<sup>1</sup>

(Keyboard Performance)  
College of Communications and  
Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
Telephone - 618-536-7505  
Altgeld Hall, Room 105

Charles Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a keyboard performer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enroll for and receive two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-D 101, 117	English Composition; Expository Writing	3	2
*MUS 140	Applied Music (principal instrument)	2	2
*MUS	Major Ensemble (see below)	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	1
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 152	Interpersonal Communications	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
*MUS 240	Applied Music (principal instrument)	4	4
*MUS	Major Ensemble (see below)	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Contrapuntal Techniques	-	2
		<u>15</u>	<u>15</u>

\*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music Education is also available in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 will count toward GE-C requirements.

### Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Classical Music Specialist, Symphony Orchestra Artist, Solo Performer, Opera Artist, Music Conductor, Instrumental Conductor, Instrumental Soloist, Choral Group Artist, Strings Instruments Specialist, Woodwinds Instruments Specialist, Church Organist.

MUSIC  
(Music Business)  
College of Communications and  
Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
Telephone - 618-536-7505  
Altgeld Hall, Room 105

Charles Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

One of the newer options in the School of Music is the Music Business specialization. This program is designed for students planning careers in business and aspects of the music profession other than performance, education, composition, or history-literature. Beginning with the second year, students take courses not only in music but also in accounting, administrative sciences, economics, finance, and marketing.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 101	Conceptual Insights into Modern Communications Systems <sup>3</sup>	3	-
GE-D 101, 117	English Composition, Expository Writing	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	1
ECON 215	Introduction to Microeconomics <sup>1</sup>	-	3
MUS	Major Ensemble <sup>4</sup>	1	1
MUS 040-240	Applied Music (principal instrument) <sup>4</sup>	1	1
MUS 102	Survey of Music Literature <sup>1,4</sup>	2	1
MUS 104 a,b	Aural Skills <sup>4</sup>	1	1
MUS 105 a,b	Basic Harmony <sup>1,4</sup>	3	3
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 152 or 153	Interpersonal Communications or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	-
ACCT 220, 230	Principles of Accounting I,II <sup>4</sup>	3	3
MUS 030	Piano Class <sup>4</sup>	1	1
MUS 031	Voice Class	1	-
MUS 032, 033, 032, 035	String, Woodwind, Bass and Percussion Techniques	2	2
MUS 040-240	Applied Music (Principal Instrument)	1	1
MUS	Major Ensemble <sup>4</sup>	1	1
		<u>18</u>	<u>17</u>

<sup>1</sup>Approved substitutes for General Education.

<sup>2</sup>See Section on General Education for transfer students.

<sup>3</sup>Recommended but not required by major.

<sup>4</sup>Required by Music Major, music business specialization. Students who plan to transfer from community colleges with an associate's degree should complete comparable music courses in order to avoid spending extra time pursuing the bachelor's degree.

#### Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participations in Studio hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011 Marching Salukis, 013 Symphonic Band, 014 Concert Wind Ensemble, 017 Symphony, 020 University Chorus, 021 SIU Chorale, or 022 University Choir.

Representative First Job Titles: Music Marketing Specialist, Audio-Marketing, Management Trainee for Recording Studio, Fund Raiser for Opera Company, Instrument Sales, Management Agency Specialist.



## MUSIC<sup>1</sup>

(Music Theory-Composition)  
College of Communications and  
Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
Telephone - 618-536-7505  
Altgeld Hall, Room 105

Charles Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a musical composer and/or college teacher of music theory-composition.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101, 117	English Composition; Expository Writing	3	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	-
*MUS 140	Applied Music (principal instrument)	2	2
*MUS 030a,b	Class Piano <sup>3</sup>	1	1
*MUS	Major Ensemble (see below)	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	1
*MUS 240	Applied Music (principal instrument)	2	2
*MUS 030c,d	Class Piano <sup>3</sup>	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Contrapuntal Techniques	-	2
*MUS 280	Beginning Composition	2	2
		<u>16</u>	<u>14</u>

\*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music Education is also available in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup>Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

### Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Classical Music Specialist, Composer, Arranger, Music Theory Specialist.

MUSIC<sup>1</sup>  
(Piano Pedagogy)  
College of Communications and Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
Telephone 618-536-7505  
Altgeld Hall, Room 105

Charles, Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a pianist and/or applied piano teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enroll for and receive two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-B	Social Sciences (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117	Expository Writing	-	2
*MUS 140Q	Applied Piano	2	2
*MUS 030a,b	Seminar	1	1
*MUS	Ensemble	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a	Aural Skills	1	1
*MUS 105a	Basic Harmony	3	3
		<u>16</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	2
GE-D 152	Speech	3	-
*MUS 240	Applied Music	4	4
*MUS 030c,d	Seminar	1	1
*MUS 040Q	Keyboard Musicianship	-	2
*MUS	Ensemble	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Counterpoint	-	2
		<u>16</u>	<u>15</u>

\*Required courses for a major in music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music Education is also available in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 will count toward GE-C requirements.

#### Music As A Major

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Sumphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Private Applied Piano Instructor, Classroom Piano Teacher, Piano Soloist, Piano Accompanist, Symphony Orchestra Artist, Composer/Arranger, and Church Pianist.

MUSIC<sup>1</sup>  
(Vocal Performance)  
College of Communications and  
Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
Telephone - 618-536-7505  
Altgeld Hall, Room 105

Charles Fligel, Advisor  
Telephone 618-536-7505  
Altgeld Hall, Room 101

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

The following illustrates the course of study to be followed during the first two years by those intending to pursue a career as a singer and/or private applied teacher. One wishing to attempt this specialization should, before the sophomore year, secure approval by the appropriate applied jury, and thereafter enrolls for and receives two half-hour lessons per week for 4 credits per term in applied music.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101, 117	English Composition; Expository Writing	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	1
*MUS 140P	Applied Music (voice)	2	2
*MUS 030a,b	Piano Class <sup>3</sup>	1	1
*MUS	Major Ensemble (see below)	1	1
*MUS 102	Survey of Music Literature	2	-
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	3
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	-	3
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	-
*FOR LANG	French or German	4	4
*MUS 240P	Applied Music (voice)	4	4
*MUS 030c,d	Class Piano <sup>3</sup>	1	1
*MUS	Major Ensemble (see below)	1	1
*MUS 204	Advanced Aural Skills	1	-
*MUS 205	Advanced Harmony	3	-
*MUS 207	Contrapuntal Techniques	-	2
		<u>15</u>	<u>15</u>

\*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of the School of Music well in advance to determine comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music Education is also available in the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student. Music 102-2 and the second semester of foreign language count toward GE-C requirements.

<sup>3</sup>Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

Music As A Major

Credits in one's principal applied field are based on (1) private lessons with a member of the faculty, (2) weekly participation in Studio Hour (Mondays at 10:00 a.m.), and (3) recorded attendance each term at seven campus recitals or concerts, approved for the purpose by the School of Music faculty, in which the student is not a participant.

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011-Marching Salukis, Music 013-Symphonic Band, 014-Concert Wind Ensemble, 017-Symphony, 020-University Chorus, 021-SIU Chorale, or 022-University Choir.

Representative First Job Titles: Popular Music Specialist, Classical Music Specialist, Television Artist, Opera Artist, Folk Music Specialist, Choral Group Artist, Assistant to Music Director, Church Choirmaster, Music Librarian.



### MUSIC EDUCATION<sup>1</sup>

(Music Education - Instrumental or Choral)  
College of Education  
(Bachelor of Science)  
College of Communications and Fine Arts  
(Bachelor of Music)

Dr. Robert Roubos, Director  
School of Music Telephone - 618-453-2263  
Altgeld Hall, Room 105

M. Frances Giles  
Coordinator of Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

The School of Music offers programs to prepare students for careers in musical performance, conducting, composition, teaching, research, and related areas in the music industry. It is assumed that students planning one of these careers will have had extensive pre-university experience in performing with school groups and/or as soloist, basic music reading ability, strong sensitivity to music, and a desire to communicate it to others.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>2</sup>	-	2
GE-E 201	Healthful Living	2	-
*MUS 030a,b	Piano Class <sup>3</sup>	1	1
*MUS 102	Survey of Music Literature	-	2
*MUS 104a,b	Aural Skills	1	1
*MUS 105a,b	Basic Harmony	3	3
*MUS 140	Applied Music (principal instrument)	2	2
*MUS	Major Ensemble (see below)	1	1
		<u>16</u>	<u>18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 202	Introduction to Psychology	-	3
GE-B 212 or 301	American Government or U.S. History	3	-
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-C	English elective in Humanities	-	3
GE-D 107	Intermediate Algebra	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being - Activity	2	-
*MUS 034, 035	Brass Class; WW Class (for Instrumental Music)	1	2
or MUS 030a,b	Piano Class <sup>3</sup> (for choral Music Education)	(1)	(1)
*MUS 204	Advanced Aural Skills	1	-
*MUS 240	Applied Music (principal instrument)	2	2
*MUS	Major Ensemble (see below)	1	1
		<u>16</u> (17)	<u>17</u> (18)

\*Required courses for a major in Music. Students who intend to transfer with an associate's degree from a community college should contact the Director of Music well in advance to determine the comparability of music classes and to avoid spending additional time completing the bachelor's degree.

<sup>1</sup>Music education curriculums are available in both the College of Communication and Fine Arts and the College of Education.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup>Students with piano background may waive part or all of the piano class requirement, as justified by a proficiency examination.

The following courses are required for Teacher Certification: GE-B 202, Introduction to Psychology; GE-B 212 or GE-B 301; GE-D 101; GE-D 117 or 118 or 119; GE-D Speech; GE-E 100-114 (2 hours); GE-E 201; plus one additional English course from GE-C, GE-D or departmental.

#### Music As A Major

Students interested in this specialization should become aware of the requirements for entering the Teacher Education Program (explained in another section of this text).

All freshmen and sophomores pursuing a baccalaureate degree program in music must maintain satisfactory membership each term in residence, in one of the following: Music 011, Marching Salukis; Music 013, Symphonic Band; 014, Concert Wind Ensemble; 017, Symphony; 020, University Chorus; 021, SIU Chorale; or 022, University Choir.

OCCUPATIONAL EDUCATION

(Occupational Teaching)

(Secondary School Occupational Teaching)

College of Education

(Bachelor of Science)

M. Frances Giles, Coordinator

Teacher Education Services

Wham Building, Room 135

Dr. Marcia Anderson, Chairperson

Vocational Education Education

Telephone - 618-453-3321

Wham Building, Room 146

There are two specializations in Occupational Education, each leading to the Bachelor of Science in Education degree. Programs include specializations in secondary occupational teaching and occupational teaching (post-secondary). The specialization in secondary occupational teaching leads to entitlement to a Standard High School Teaching Certificate.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 101, 106 or 110	Conceptual Insights into Modern Communication Systems	3	-
GE-A 106	Chemistry for Non-Science Majors	-	3
GE-B 212 or 301	Introduction to American Government and Politics or U.S. History <sup>2</sup>	3	-
GE-B 202	Introduction to Psychology <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1,2</sup>	-	2
GE-E 201	Healthful Living <sup>2</sup>	-	2
GE-E	Human Health and Well Being - Activity <sup>2</sup>	1	-
Elective		<u>2</u>	<u>2</u>
		16	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Education (select) <sup>1</sup>	3	-
GE-C	English in Humanities (select) <sup>1,2</sup>	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 153	Public Speaking <sup>2</sup>	3	-
GE-E	Human Health and Well Being - Activity <sup>2</sup>	-	1
VES 360A,B	Vocational, Occupational & Career Simulation Cluster Education	3	3
VES 362	Vocational, Occupational & Career Orientation & Exploration	-	3
Elective		-	6
		<u>15</u>	<u>16</u>

<sup>1</sup>Refer to the section General Education for the Transfer Student.

<sup>2</sup>The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics, or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; one additional English course (GE-C, GE-D or departmental).

Refer to the Undergraduate Catalog for specific major requirements.

Special Note to Community College Personnel: The programs in occupational teaching and secondary school occupational teaching require the equivalent of an associate degree in a technical specialty for admission.

# PARALEGAL STUDIES FOR LEGAL ASSISTANTS

College of Liberal Arts  
(Bachelor of Science)

Dr. M. Browning Carrott  
Director  
Telephone - 618-453-4391  
Faner Hall, Room 3280

The Paralegal Studies Program, leading to a B.S. degree in Paralegal Studies in the College of Liberal Arts, will prepare the graduate to function as a paraprofessional in the legal profession and as a legal assistant, whether in private practice, legal aid offices, or the law-related operations of business, industry, education, or government.

In overall philosophy, as well as in curriculum content and format, the Paralegal Studies Program follows the lead of the American Bar Association Special Committee on Legal Assistants in its "Proposed Curriculum for the Training of Law Office Personnel."

The program has two components:

1. A core of legal specialty courses and administration related courses designed to provide career specificity and professional competency.
2. A range of social science, humanities, and communication skills courses designed to provide a spirit of inquiry and a depth of vision of the various contexts within which the paralegal's professional life will take place.

In addition, the student must meet all University requirements as well as appropriate College of Liberal Arts requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	3	-
GE-B 212	Intro. to American Government & Politics <sup>1,2</sup>	-	3
GE-C	Humanities (select)	2	-
GE-D 101 & 117, 118 or 119	English Composition and Writing	3	2
GE-D 107	Intermediate Algebra <sup>1</sup>	-	3
Foreign Language (select) <sup>4</sup>		4	4
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
EDP 107 or CS 102	Electronic Data Processing Concepts or Computers in Society	-	3
SCR 220 or SCR 223 <sup>3</sup>	Legal Documents Production or Legal Administrative Support Procedures <sup>3</sup>	3 (4)	-
ACCT	Accounting <sup>3</sup>	3	-
GE-D 153	Public Speaking <sup>1,2</sup>	-	3
ENG 290	Intermediate Expository Writing <sup>3,5</sup>	-	3
GE-E		2	2
GE-C	Humanities (select) <sup>1</sup>	3	3
		<u>14 (15)</u>	<u>14</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Recommended but not required for major.

<sup>3</sup>Required by the major.

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>5</sup>Computer Science 102 and English 290 may be used toward partial fulfillment of the Liberal Arts requirements.

Representative First Job Titles: Legal Assistant, Paralegal.



## PHILOSOPHY

College of Liberal Arts  
(Bachelor of Arts)

Dr. Elizabeth R. Eames  
Chairperson  
Telephone - 618-536-6641  
Faner Building, Room 3065

The Philosophy Department offers a broad range of courses covering the areas of ethics, aesthetics, logic, metaphysics, the history of both Western and Oriental philosophy, as well as art, education, history, and religion.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C 102 or 208	Problems in Philosophy or Elementary Logic <sup>2</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
MATH or CS	Mathematics or Computer Science <sup>3</sup>	-	3
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	-
FL	Foreign Language <sup>4</sup>	4	4
GE-C 104 or 213	Moral Decision or E. Asian Civilization	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
PHIL 304	Ancient Philosophy <sup>5</sup>	3	-
PHIL 305	Modern Philosophy <sup>5</sup>	-	3
ENG COMP <sup>3</sup>	English Composition (above 100 level)	-	3
Elective <sup>6</sup>		-	3
		<u>16</u>	<u>16</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>No more than 2 courses or 6 hours on the 100 and 200 level will count toward the major.

<sup>3</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>5</sup>Required course for a major in Philosophy.

<sup>6</sup>Elective hours should be used to explore areas of interest and enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

### Philosophy As A Major

The program in philosophy is an excellent background for future work in law schools, seminaries, government service and other professional areas, as well as graduate school. The Department maintains its own advisement system to help the student design a program which best suits his or her interests and needs. The Honors Program in Philosophy provides students a chance to participate in seminars on a variety of topics.

Representative First Job Titles: Researcher, Minister, Technical Writer, Community Relations, Employee Relations, Grievances Specialist, Public Relations, Publications Officer, Alcoholism & Drug Addiction Researcher, Archival Worker, Museum Curator, Public Information Specialist, Mediator, Civic Reform Studies Specialist, Sales Trainee, Delinquency Prevention Specialist, Group Interaction Studies Specialist, Morale Studies Specialist, Public Health Investigator, Motivational Researcher, Librarian.

# PHOTOGRAPHIC PRODUCTION TECHNOLOGY

School of Technical Careers  
(Associate in Applied Science)

Robert White  
Program Coordinator  
Telephone 618-536-6682  
Blue Barracks

The Photographic Production Technology program is a two-year Associate Degree program within the School of Technical Careers, Southern Illinois University.

Served by an advisory committee of professionals active in the photographic and photo-finishing industry, the program is designed to prepare students for careers in industrial, commercial and private photography, and photofinishing organizations.

Through active involvement in professional organizations, Photo Marketing Association International and Professional Photographers of America, the techniques and processes included in the instructional program are current and consistent with industrial needs.

Students will be involved in photographic processes and techniques in lecture/laboratory sessions, tour industrial and commercial installations, and be involved in actual production needs of the University's Photographic Services division which is operated by the Photo-graphic Production Technology program.

During the two-year program, students will be involved with all facets of photography and photo finishing. Students should expect to spend approximately \$700 for materials and chemicals. In addition, each student is to provide their own fully-adjustable camera.

Some of the advantages of the program are the diversity of actual photographic assignments and photofinishing production assignments to be performed meeting the needs of a major university community, and the flexibility which it provides in career opportunities. A Bachelor's degree program through the School of Technical Careers is also available for those completing the Associate degree.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 106	Chemistry for Non-Science Majors	3	-
SCR 100	Typewriting	-	3
GE-D 101	English Composition	-	3
PPT 111	Photo Processing I	4	-
PPT 113	Photo Processing II	4	-
PPT 115	Photo Processing Equipment	4	-
PPT 209	Graphics for Photography	-	4
PPT 211	Photo Processing III	-	6
STC 105a	Technical Mathematics	2	-
		<u>17</u>	<u>16</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 152	Interpersonal Communication	-	3
GE-B 211	Contemporary Economics	-	3
EDP 101	Intro Data Processing	3	-
PPT 215	Photo Processing IV	6	-
PPT 221	Photo Processing V	6	-
PPT 251a	Photo Lab Mgt. (lecture)	-	3
PPT 251b	Photo Lab Mgt. (lab)	-	6
		<u>15</u>	<u>15</u>

Total of 63 Semester Hours.

Core courses (9-100 + 200 level courses, 43 hours)

Supportive courses (7 general education, 20 hours)

## Photographic Production Technology As A Major

The associate degree program can be completed in two academic years at SIU or in combination with community college or other acceptable educational experiences.

PHYSICAL EDUCATION  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Michael Wade  
Chairperson,  
Telephone - 618-536-2431  
Davies Gymnasium, Room 106

The concentration is intended to qualify young people for positions as teachers, coaches, or specialists in public and private elementary or secondary schools, colleges, and universities as well as other social agencies which promote physical activity programs. Courses have been designed to meet the requirements of state departments of education and other agencies which have adopted professional standards.

Complete and integrated experience in teaching physical education and assisting in coaching under qualified supervisors is provided in the cooperating schools of the area. Added experiences are gained through membership in the Club; membership in professional associations, participation on intramural teams; assisting in service class testing; professional journals; and working with recreational and school groups in teaching techniques of various activities.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B 301 or 212	History of U.S. or Intro. to American Government & Politics <sup>2</sup>	-	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>1,2</sup>	-	2
GE-D 107	Intermediate Algebra	-	3
GE-E 201	Healthful Living <sup>2</sup>	2	-
Electives		1	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	English Elective in Humanities (required) <sup>2</sup>	-	3
GE-D 153	Public Speaking <sup>2</sup>	2	-
GE-E	Human Health and Well Being <sup>2</sup>	-	2
PE	Electives	7	7
PHSL	Physiology <sup>3</sup>	-	3
		<u>15</u>	<u>15</u>

<sup>1</sup>Refer to the section General Education for Transfer Students.

<sup>2</sup>The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government, or GE-B 301, U.S. History; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical Report or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours) Physical Education activity; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

<sup>3</sup>A course in physiology approved by the department.

Physical Education As A Major

GPA 2.50 minimum for Teacher Education Program.

A secondary concentration (the student may select the area) is recommended.

Refer to the Undergraduate Catalog for specific major requirements.

Minors are available in Aquatics, Athletic Training, and Coaching.



PHYSICAL EDUCATION  
Athletic Training Specialization  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Michael Wade, Chairperson  
Physical Education  
Telephone - 618-536-2431  
Davies Gymnasium, Room 106

The Athletic Training program is designed to train students to provide exemplary first-aid care for student-athletes, and administer rehabilitation, therapeutic treatment, and preventative conditioning programs under the supervision of a physician. This program prepares graduates for careers as Athletic Trainers in public schools, colleges and private and industrial settings.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 101	Conceptual Insights into Modern Communication Systems	3	-
GE-B 202	Introduction to Psychology	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>1</sup>	-	3
GE-E	Human Health and Well Being	-	2
CHEM 115	Chemistry	-	3
F&N 100	Fundamentals of Nutrition	3	-
Electives	Health	-	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being	-	2
PHSL	Physiology <sup>2</sup>	-	3
Electives	Health	3	4
		<u>16</u>	<u>15</u>

<sup>1</sup>Refer to the section General Education for Transfer Students.

<sup>2</sup>A course in physiology approved by the department.

Physical Education Athletic Training Specialization

Refer to the Undergraduate Catalog for specific major requirements.

Major GPA required is 2.50.

Students interested in either the athletic training major or minor should apply in the Physical Education Department in Davies Gym. Enrollment is limited.

### PHYSICAL EDUCATION

Dance Pedagogy Specialization  
Dance Performance/Choreography Specialization  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Michael Wade, Chairperson  
Physical Education  
Telephone - 618-536-2431  
Davies Gymnasium, Room 106

The Dance program offers specializations in dance pedagogy and in performance/choreography. The curriculum is designed to prepare the dancer both in education and in the performing and choreographic arts. Students in dance can audition to become members of the Southern Illinois Repertory Dance Company--the resident company serving both faculty and students.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 117, 118			
or 119	Writing (select) <sup>1</sup>	-	3
GE-E	Human Health and Well Being	-	2
PE	Electives (Dance)	3	3
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being	-	2
MUS 101	Music Fundamentals	3	-
PE	Electives (Dance)	3	7
PHSL	Physiology <sup>2</sup>	3	-
		<u>15</u>	<u>15</u>

<sup>1</sup> Refer to the section General Education for Transfer Students.

<sup>2</sup> A course in physiology approved by the department.

### Physical Education Dance Specializations

Refer to the Undergraduate Catalog for specific requirements.

PHYSICAL EDUCATION

Exercise Science and Physical Fitness  
Specialization  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Michael Wade, Chairperson  
Physical Education  
Telephone - 618-536-2431  
Davies Gymnasium, Room 106

This program is designed for students who wish to direct physical fitness programs in private, industrial and public settings. Preparation in this program enables the graduate to assess components of adult fitness, design individual exercise programs for the development and maintenance of physical fitness, and manage a physical fitness program. Graduates will have the foundation for continued study at the graduate level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B 202	Introduction to Psychology	-	3
GE-B	Social Science (select) <sup>1</sup>	5	-
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	-	4
GE-D 118	Technical Writing	-	3
GE-E	Human Health and Well Being	2	-
PE	Electives	1	5
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
CHEM 140a,b	Chemistry	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 110	Basic Applications of Statistics	-	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being	-	2
CS 202	Introduction to Computer Programming	3	-
PE	Electives (Aerobic Dance)	3	2
ACCT 220	Accounting I	-	3
		<u>15</u>	<u>17</u>

<sup>1</sup> Refer to the section General Education for Transfer Students.

Physical Education - Exercise Science and Physical Fitness Specialization

Refer to the Undergraduate Catalog for specific requirements.



## PHYSICAL EDUCATION

Physical and Special Education Specialization  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Michael Wade, Chairperson  
Physical Education  
Telephone - 618-536-2431  
Davies Gymnasium, Room 106

Many handicapped students exhibiting learning problems also exhibit motor development deficiencies. Teachers trained in Special Education are responsible for delivering motor skill instruction to their students, but often lack the theoretical knowledge necessary to educate handicapped children. The Department of Physical Education offers an interdisciplinary approach to training, to address this pre-service deficiency, by combining the majors of Special Education and Physical Education. Graduates from this program are certified to teach in both areas. This allows the student to seek employment as a Special Education classroom teacher, a regular Physical Education teacher, an adapted Physical Education teacher, or any combination thereof.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 115	Biology	3	-
GE-B 301 or 212	History of U.S. or Intro. to American Government & Politics <sup>1</sup>	3	-
GE-B 202	Introduction to Psychology <sup>1</sup>	-	3
GE-C 100	Music Understanding	-	3
GE-C 101	Introduction to Art	3	-
GE-D 101	English Composition <sup>1</sup>	3	-
GE-D 117 or 119	Expository or Creative Writing <sup>1</sup>	-	2
GE-E	Human Health and Well Being <sup>1</sup>	-	2
MATH 114	Algebraic & Arithmetic Systems	-	4
PE	Activities (Electives)	3	1
		15	15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 108	The Sociological Perspective	-	3
GE-C	Literature (select) <sup>1</sup>	3	-
GE-D 153	Public Speaking <sup>1</sup>	-	3
GE-E 201	Healthful Living <sup>1</sup>	2	-
MUS 101	Music Fundamentals	-	3
MATH 314	Topics in Mathematics for Elementary Teachers	4	-
PE	Activities (electives)	3	2
PHSL	Physiology <sup>2</sup>	3	-
		15	14

<sup>1</sup>The following courses are required for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government, or GE-B 301, U.S. History; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical Report or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours) Physical Education activity; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

<sup>2</sup>A course in physiology approved by the department.

## Physical and Special Education Specialization

Refer to the Undergraduate Catalog for specific major requirements.

PHYSICAL THERAPIST ASSISTANT  
School of Technical Careers  
(Associate in Applied Science)

Ted Okita, Program Coordinator  
Telephone -618-453-2361  
Wham Education Bldg., Rm. 141

The Health Careers Council of Illinois reports that the field of physical therapy is one of the five most critical areas in which a manpower shortage exists. There are growing demands for physical therapy services in hospitals, extended care and nursing home facilities, and in private practices. The nation's concern and interest in improving our health care delivery system to the entire population should continue to provide opportunities for skilled workers in this field.

The physical therapist assistant is a skilled technician who works within the physical therapy service, which is under the direction of a physical therapist. The assistant is responsible to and supervised by the physical therapist (PT).

A minimum of 73 credit hours is required for the associate degree.

First Year		Fall	Spring
GE-A 118	Introductory Zoology	4	-
GE-B 202	Introduction to Psychology	-	3
GE-D 101	English Composition	3	-
GE-D 152	Interpersonal Communication	-	2
AHC 105	Medical Terminology	2	-
PTH 100	Physical Therapy Orientation	2	-
PTH 113	Therapeutic Modalities I (8 weeks)	1.5	-
PTH 207	Massage (8 weeks)	1.5	-
PHSL 208, 209	Physiology	-	4
PHSL 300	Human Anatomy	-	3
PTH 202	Physical Rehabilitative Techniques	-	2
PTH 204	Practicum I	-	2
		<u>14</u>	<u>16</u>
Second Year		Fall	Spring
GE-A 101	Insights into Modern Communications Systems	3	-
HED 334	Standard First Aid	3	-
PE 302	Kinesiology of Normal & Pathological Conditions	2	-
Psyc 301, 303, 304 or 305	Psychology	-	3
PTH 203	Pathology	2	-
PTH 205	Physical Therapy Science	-	2
PTH 208, 209	Therapeutic Exercise I & II	3	3
PTH 213	Therapeutic Modalities II	3	-
PTH 214	Practicum II	-	3
PE 320	Physiological Bases of Human Movement	-	3
PE 325 or 326	Training Room Techniques or Emergency Care & Prevention	-	2 (3)
		<u>16</u>	<u>17</u>
		Summer	
PTH 321a,b	Clinical Internship	8	
PTH 322	Clinical Seminar	2	
		<u>10</u>	

Physical Therapist Assistant As A Major

The student should expect to spend approximately \$125.00 for uniforms and insurance.

Under the supervision of the PT, the student will utilize various physical agents such as heat, cold, light, water, electricity, and sound. The student will also be able to administer massage and therapeutic exercises as well as teach gait and other activities of daily living. The student will assist in more complex procedures such as administering manual muscle tests, electrical tests, and other evaluative examinations. The student also observes, records, and reports to the supervisor conditions, reactions, and responses related to his or her assigned duties. Other duties include general physical therapy record keeping and housekeeping.

This program is fully accredited by the American Physical Therapy Association. Available facilities restrict program enrollment. Interested persons should contact both New Student Admission Services and the Division of Allied Health and Public Service. Special application materials are included in the requirements for admission to the program. All application materials to the University and to the program for Fall 1987 should be on file no later than January 16, 1987. Selection of the fall class will be completed soon after that date. Applications completed after that date may be considered for acceptance as space is available and at the discretion of the admissions committee.

Before graduation, the student will serve an internship of twelve weeks in two separate hospitals located away from the campus.

Representative First Job Titles: Physical Therapist Assistant.

A major in Physics may be pursued through either the College of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverage in the applications of physics principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with his analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering.

The program at SIU, building upon a solid foundation of classical physics, provides a sound introduction to atomic and molecular physics with options for specializing in solid state, atmospheric, plasma, nuclear, mathematical physics and biophysics.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 212 or 301	Intro to American Government & Politics or U.S. History	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-E 201	Healthful Living	-	2
GE-D 117, 118 or 119	Writing (select) <sup>2</sup>	-	2
CHEM 222a,b	Intro. to Chemical Principals & Lab	4	4
MATH 111	Pre-Calculus <sup>3</sup>	5	-
MATH 150	Calculus I	-	5
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 202	Introduction to Psychology	3	-
GE-B	Social Science (select) <sup>2</sup>	-	3
GE-C	English, Elective in Humanities (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 153	Public Speaking	-	3
GE-E	P.E. Activity <sup>2</sup>	-	2
MATH 250	Calculus II	4	-
PHYS 205a&b, 255 a&b	University Physics & Lab <sup>4</sup>	<u>4</u>	<u>4</u>
		<u>17</u>	<u>15</u>

See also the program (B.S.) under the College of Science.

To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

Math 111 substitutes for GE-D Mathematics.

These courses count towards the GE-A science requirement.

These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem 115 (Introduction to General Chemistry) before Chem 222.

#### Physics As A Major

The following specific General Education courses are required for teacher certification (these courses may be completed during the freshman and sophomore years): GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics, or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, or 119, Expository, Technical or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).



A major in Physics may be pursued through either the College of Science or the College of Education. The program of study provides for a mastery of the basic principles of classical and quantum physics. It also provides a breadth of coverages in the applications of physical principles to neighboring fields. Because of the central position of physics among the physical sciences, the physics graduate with analytical and instrumental skills can flexibly contribute to the solution of pressing national problems of energy supply, water resources, transportation, environmental healthfulness, security and other vital concerns. A basic knowledge of classical and quantum physics is essential for a successful entry into a very wide variety of interdisciplinary areas of science such as biophysics, geophysics, communications science, space science, environmental science, medical science, and engineering. The program at SIU, building upon a solid foundation of classical physics, provides a sound introduction to atomic molecular physics.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-D 101	English Composition	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	1	2
FL	Foreign Language <sup>3,4</sup>	4	4
MATH 111	Pre-calculus <sup>4</sup>	5	-
*MATH 150	Calculus I <sup>4</sup>	-	5
		<hr/> 16	<hr/> 17
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
BIOL	Biological Sciences (not GE-A) <sup>3,4</sup>	3	3
GE-B 211	Contemporary Economics	3	-
GE-C	Humanities (select) <sup>2</sup>	3	-
GE-E	Human Health and Well Being (select) <sup>2</sup>	-	1
*MATH 250	Calculus II	4	-
*CHEM 222a,b	Introduction to Chemical Principles and Lab <sup>3,4,5</sup>	4	4
*PHYS 205 a & b			
and 255 a & b	University Physics and Lab <sup>3,4</sup>	4	4
*PHYS 301	Theoretical Methods in Physics	-	2
		<hr/> 18	<hr/> 17

\*Required courses for a major in Physics.

<sup>1</sup> See also the program (B.S.) under the College of Education.

<sup>2</sup> To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup> Approved substitutes for General Education.

<sup>4</sup> Students in the College of Science must take one year of foreign language, one year of math, six semester hours of physical sciences, and six semester hours of biological sciences.

<sup>5</sup> These courses are for students with a year or more of high school chemistry. Those with less than a year should take Chem 115 (Introduction to General Chemistry) before Chem 222.

#### Physics As A Major

At SIU a student may elect one of several options to prepare himself or herself as a physicist. Choices exist for both the experimentally and theoretically-oriented student. The physics major may prepare to enter the graduate school or an industrial and/or government laboratory. In addition, there is a degree option for those wishing to teach in the secondary level school system.

Representative First Job Titles: Physicist, Acoustics Physicist, Design Physicist, Electricity and Magnetism Physicist, Light Physicist, Quality Control Physicist, Research Physicist, Aerodynamics Scientist, Applied Physics Researcher, Astrophysicist, Atomic and Molecular Physicist, Biophysicist, Geophysicist, Factory Insurance Representative, Thermodynamics Physicist, Optics Physicist, Manufacturer's Representative, Mechanics Physicist, Nuclear Physicist, Plasma Physicist, Product Studies and Testing Physicist, Solid-State Physicist, Physical Metallurgy Scientist, Biophysicist, Astronomer, Geodesist, Crystallographer, Air Pollution Analyst, Theoretical Physicist, Health Physicist.

## PHYSIOLOGY

College of Science  
(Bachelor of Arts)

Dr. Andrzej Bartke  
Dept. Executive Officer  
Telephone - 618-536-5513  
Life Science II, Room 245

Physiology involves studying the functioning of organisms during life and how life processes operate. Courses include pharmacology, electron microscopy, physiological techniques, and anatomy. Although a bachelor's degree with such a major is adequate preparation for some jobs, graduate training is usually required to obtain professional recognition. Colleges and universities provide the greatest job opportunities. Government agencies are the second largest employers of physiologists.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
FL	Foreign Language (select) <sup>2,3</sup>	4	4
CHEM 222a,b	Introduction to Chemical Principles <sup>2,3</sup>	4	4
MATH 108,109	College Algebra and Trigonometry <sup>2,3</sup>	3	3
		<u>17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
MATH 140, 141 or 150	Calculus	4	-
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
BIOL 305	Genetics <sup>3</sup>	-	3
PHYS 203a,b and 253a,b	University Physics and Lab <sup>2</sup>	4	4
CHEM 344	Organic Chemistry	4	-
CHEM 345	Lab Techniques	2	-
CHEM 346	Organic Chemistry	-	2
CHEM 347	Lab Techniques	-	3
		<u>17</u>	<u>15</u>

<sup>1</sup>Refer to section General Education for the Transfer Student.

<sup>2</sup>Approved substitutes for General Education.

<sup>3</sup>Students in the College of Science must take one year of foreign language, one year of math, six semester hours of physical sciences, and six semester hours of biological sciences.

## Third and Fourth Years

During the third year, students select from Biology 307, 308, 309. Students fulfill remaining General Education requirements and select physiology courses according to professional interests and remaining departmental requirements. If students choose the one-year Organic Chemistry series, they are encouraged to take Biochemistry (CHEM 450 or 451) in their third or fourth year.

## Physiology As A Major

In addition to adequate equipment for all routine work, the following facilities are available to our graduate students: An RCA and a Hitachi electron microscope as well as a shadowcaster, photographic equipment, knifebreaker, and ultramicrotome; isotopic equipment including scalers and monitors; fully equipped animal room, autoclave, several varieties of analytic balances, refrigerated centrifuges; constant temperature baths and ovens; walk-in cold rooms; electrophoresis equipment; Warburg apparatus; physiographs; fraction collectors; oscilloscopes; blood gas apparatus, electrocardiograph; strength testing equipment.

Representative First Job Titles: Physiologist, Pharmacologist, Biological Warfare Personnel, Bioastronautician, Physiological Researcher, Genetics Researcher, Manufacturer's Representative, Pathologist, Technical Writer, Biostatistician, Researcher, Toxicologist, Pharmaceutical Sales Representative.

PLANT AND SOIL SCIENCE  
(Business Option)  
School of Agriculture  
(Bachelor of Science)

Dr. James Tweedy, Chairperson  
Telephone - 618-453-2496  
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the business option is oriented toward the student interested in working in business and industry, he or she still may select courses in a wide choice of electives from throughout the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special Education, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well Being	2	2
CHEM 140a	Chemistry <sup>1</sup>	-	4
BOTANY 200	General Botany and Lab <sup>1</sup>	4	-
PLSS 200	Principles of Field Crop Production	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	2	-
GE-B	Social Studies (select)	3	-
GE-C	Humanities (select)	-	3
GE-D 153	Public Speaking	-	3
GE-A or B or C	Elective	-	3
ABE 204	Intro to Agricultural Economics <sup>1</sup>	3	-
ACCT 210	Accounting Principles and Control	-	3
CHEM 140b	Chemistry	4	-
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
		<u>15</u>	<u>16</u>

<sup>1</sup>Substitutes for General Education requirements.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 40 hours in agriculture is required which includes 28 hours in Plant and Soil Science, and six hours from two other departments in the School of Agriculture. Of the 28 required hours in Plant and Soil Science, at least fifteen hours must be at the 300 and 400 level with no less than nine hours at the 400 level. In addition, the student must take either Marketing 304 or ABE 360, and management 301 or 304, eight hours of business electives, and Botany 320. The student may select courses within the University for eight hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.



PLANT AND SOIL SCIENCE  
(Environmental Studies Option)  
School of Agriculture  
(Bachelor of Science)

Dr. James Tweedy, Chairperson  
Telephone - 618-453-2496  
Agriculture Building, Room 176

The Environmental Studies option is designed to familiarize the student with environmental problems relating to plants and soils. Thorough training in the solution to these problems will prepare students for interesting careers with environmental protection agencies, pollution control boards and other agencies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	One course from either group: Group 1 GE-B 103, 104, or 105 Group 2 GE-B 108 or 102	3	-
GE-C 221	Survival of Man	-	3
GE-C	Humanities (select)	3	-
GE-D 101	English Composition	3	-
GE-D 118	Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	2	-
BOTANY 200	General Botany and Lab <sup>1</sup>	-	4
CHEM 222a&b	Intro. to Chemical Principles and Lab <sup>1</sup>	4	4
ABE 204	Intro. to Agricultural Economics	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 330	Weather	-	3
GE-B 212	Intro. to American Government & Politics	3	-
GE-C	Humanities (select)	-	3
GE-D 153	Public Speaking	3	-
GE-E	Human Health and Well Being (select)	-	2
GE-A, B or C	Elective	3	-
AG 333	Agr. & Forestry Env. Problems	-	3
ECON 215	Introduction to Microeconomics	3	-
MATH 108, 109	College Algebra and Trigonometry	3	3
PLSS 220	General Horticulture	-	3
		<u>15</u>	<u>17</u>

<sup>1</sup>Substitutes for General Education requirements.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: ANI 455-2, AGRI 401-3, and 440-3; BOT 320-4; ECON 333-3, PLSS 200-3, 240-4, 381-1, 419-3, 420-4, 441-3, 447-3, and 468-3, POLS 325-3 and 340-3; and CE 314-4. In addition, the student may select courses within the University for three hours of outside electives, and nine hours of electives in the School of Agriculture.

Environmental Studies As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE  
(General Option)  
School of Agriculture  
(Bachelor of Science)

Dr. James Tweedy, Chairperson  
Telephone - 618-453-2496  
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the general option is production oriented, the student may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special Education, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	2	2
ABE 204	Agricultural Economics <sup>1</sup>	-	3
BOTANY 200	General Botany and Lab <sup>1</sup>	4	-
CHEM 140a	Chemistry <sup>1</sup>	-	4
PLSS 200	Principles of Field Crop Production	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B	Social Studies (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 153	Public Speaking	-	3
GE-A or B or C	Elective	-	3
CHEM 140b	Chemistry	4	-
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
PLSS elective		-	3
		<u>16</u>	<u>16</u>

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>Consult the section General Education for the Transfer Student.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. A total of 45 hours in agriculture is required which includes 28 hours in Plant and Soil Science, six hours from two other departments in the School of Agriculture and Botany 320-4. Of the 28 required hours in Plant and Soil Science, at least fifteen hours must be at the 300 and 400 level with no less than nine hours at the 400 level. In addition, the student may select courses within the university for nineteen hours of outside electives.

Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with potential employers and assists in finding internships and per-manent positions. A minor is not required and there are no foreign language requirements. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

PLANT AND SOIL SCIENCE  
(Landscape Horticulture)  
School of Agriculture  
(Bachelor of Science)

Dr. James Tweedy, Chairperson  
Telephone - 618-453-2496  
Agriculture Building, Room 176

The Department of Plant and Soil Science includes in its program an option in Landscape Horticulture. The program is designed to provide thorough training in both theory and practice to prepare students for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Sciences (select) <sup>2</sup>	3	-
GE-C	Humanities (select)	-	3
GE-D 101	English Composition	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	2
ABE 204	Agricultural Economics <sup>1</sup>	-	3
BOTANY 200	General Botany and Lab <sup>1</sup>	4	-
CHEM 140a	Chemistry <sup>1</sup>	-	4
PLSS 220	Principles of Field Crop Production	-	3
		<u>15</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select)	-	2
GE-B	Social Sciences (select) <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 153	Public Speaking	-	3
GE-A, B, or C	Elective	3	-
AdSc 301	Management and Supervision	-	3
AGEM 376	Applied Graphics	2	-
CHEM 140b	Chemistry	4	-
PLSS 240	Soil Science	-	4
PLSS 200	Principles of Field Crop Production	-	3
		<u>15</u>	<u>18</u>

<sup>1</sup>Substitutes for General Education requirements.

<sup>2</sup>Refer to the section General Education for the Transfer Student.

Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives. The student must enroll in the following courses: BIOL 307-3, BOT 320-4, 356-4 or 357-3, PLSS 322-3, PLSS 327-3; 328a, b-2,2; 381-1, 428a, b-33, 432-4 or 434-3, and ZOOL 316-3. In addition, the student may select courses within the University for four to six hours of outside electives, and ten hours of electives in the School of Agriculture.

Landscape Horticulture As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with employers and assists students in finding internships and permanent positions. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Landscape Gardener, Nurseryman, Garden Center Manager, Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.



## PLANT AND SOIL SCIENCE

(Science Option)  
School of Agriculture  
(Bachelor of Science)

Dr. James Tweedy, Chairperson  
Telephone - 618-453-2496  
Agriculture Building, Room 176

The Department of Plant and Soil Science includes field crop production, horticulture and soils. There are many widely varied opportunities for students with an interest in plants or soils. The program is designed to provide thorough training in both theory and practice. Although the science option is oriented toward the student interested in an advanced degree, he or she still may select elective courses from the School of Agriculture and the University. Opportunities for individual program development may be realized through work experience, internships, special Education, and seminars. A course of study in international agriculture can be taken if the student so desires.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well Being (select)	2	2
ABE 204	Agricultural Economics <sup>1</sup>	-	3
BOTANY 200	General Botany and Lab <sup>1</sup>	4	-
CHEM 222a&b	Introduction to Chemical Principles <sup>1</sup>	4	4
MATH 108, 109	College Algebra and Trigonometry <sup>1</sup>	3	3
PLSS 200	Principles of Field Crop Production	-	3
		<u>16</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Studies (select)	3	3
GE-C	Humanities (select)	3	3
GE-D 153	Public Speaking	-	3
GE-A or B or C	Elective	3	-
PHYS 203a&b	College Physics	3	3
PLSS 220	General Horticulture	3	-
PLSS 240	Soil Science	-	4
AG electives		<u>2</u>	<u>-</u>
		<u>17</u>	<u>16</u>

<sup>1</sup>Substitutes for General Education requirements.

### Third and Fourth Years

The last two years of a student's program concentrates on specific professional objectives. A total of 40 hours in agriculture is required which includes 28 hours in Plant and Soil Science, and six hours from two other departments in the School of Agriculture. Of the 28 required hours in Plant and Soil Science, at least fifteen hours must be at the 300 and 400 level with no less than nine hours at the 400-level. In addition, the student must take Botany 320, Chem 340 and 341 and four hours of courses in mathematics, physical sciences, or biological sciences. The student may select courses within the University for nine hours of outside electives.

### Plant And Soil Science As A Major

Numerous job opportunities are available for graduates of this option. The department maintains close contact with many universities and research laboratories and assists in placing students. A minor is not required and there is no foreign language requirement. An honors program and a work experience program are available.

Representative First Job Titles: Soil Conservationist, Water Conservationist, Soil Erosion Prevention Specialist, Geological Environment Mapping Scientist, Aquifers and Rocks Characteristics Scientist, Plant and Soil Laboratory Technologist, Production Manager, Plant Quarantine Inspector, Plant Pest Control Inspector, Farm Manager, Entomologist, Foreman-Park Maintenance, Public and Environmental Health Scientist, Plant Ecologist, Plant Breeding Expert, Plant Morphologist, Technical Service Representative, Plant Pathologist, Plant Physiologist, Plant Taxonomist, Soil Bacteriologist.

POLITICAL SCIENCE<sup>1</sup>  
(Government)  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

The Department of Political Science offers an undergraduate major in the College of Liberal Arts and the College of Education. The major requires a minimum of thirty-four hours in Political Science courses. A minimum GPA of 2.5 is required. Furthermore, at least three courses must be taken at the 400 level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	-
GE-B 202	Introduction to Psychology	-	3
GE-B 211	Contemporary Economics <sup>3</sup>	-	3
GE-B 212	Intro. to American Government & Politics	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>2</sup>	-	2
GE-E	Human Health and Well Being <sup>2</sup>	2	-
GE-D 107	Intermediate Algebra	-	3
Electives		1	1
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>2</sup>	3	3
GE-C	English Elective in Humanities	3	-
GE-B 301 or HIST 300	Modern America from 1877 to the Present Origins of Modern America, 1492-1877	-	3
GE-B 250	Intro. Comparative Government & Politics <sup>3</sup>	3	-
GE-E 201	Healthful Living	-	2
GE-D 153	Public Speaking	3	-
Elective <sup>2,4</sup>		4	8
		<u>16</u>	<u>16</u>

<sup>1</sup>See also the program under the College of Liberal Arts.

<sup>2</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>3</sup>Recommended but not required.

<sup>4</sup>Elective hours should be used in the following ways: (1) students may explore areas of interest; (2) in order to select a minor.

Political Science As A Major

The following specific General Education courses are required for teacher certification. (These courses may be completed during the freshman and sophomore years.): GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics, or GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

**POLITICAL SCIENCE\***  
College of Liberal Arts  
(Bachelor of Arts)

Dr. John Foster, Chairperson  
Telephone - 618-536-2371  
Faner Building, Room 3081

The Department of Political Science offers undergraduate majors in the College of Liberal Arts and the College of Education. The major requires a minimum of 33 hours in five different fields. A minimum GPA of 2.0 is required. Furthermore, at least three courses must be taken at the 400 level, and at least 15 of the required 33 hours must be earned at SIU.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-B 212	Intro. to American Government & Politics <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101 & 117			
or 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
		<u>14</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
FL	Foreign Language <sup>3</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
MATH or CS	Math or Computer Science <sup>4</sup>	3	-
POLS 270	Intro. to International Relations <sup>5</sup>	-	3
Elective <sup>6</sup>		3	3
		<u>16</u>	<u>15</u>

\*See also the program under the College of Education.

<sup>1</sup> See General Education for the Transfer Student.

<sup>2</sup> Required by the major.

<sup>3</sup> Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>4</sup> One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>5</sup> Recommended but not required.

<sup>6</sup> Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (refer to College of Liberal Arts section).

**Political Science As A Major**

The Greek word "idiot" meant one who has no interest in politics and the affairs of state. Hence, the study of political science is one of the oldest and most central of mankind's intellectual activities. Some of the major topics of political science are: What is the best form of government? How do various governments around the world actually work? What is the appropriate relationship between the individual and the state? How can conflicts between nations be resolved short of violence?

Political science majors work with questions as old and important as the above as well as with recently developed social science research techniques. Courses in political science encourage students to question, analyze and reason in addition to improving written and verbal communication skills. They also provide a great deal of expertise on the inner workings of all levels of government and the relationships between government and the private sector.

Political Science majors are encouraged to receive a broad education tailored to their particular career plans. Those interested in foreign affairs should stress a foreign language. A student interested in social science research skills can combine political science with economics, statistics and computer science. Someone interested in a legal career can join political science with English, philosophy and a range of other social sciences. The SIU Department of Political Science offers a full range of courses in the field and has developed significant visibility for its research efforts in recent years.

**Career Opportunities:** A major in political science provides excellent training for the public service, scientific polling and political analysis, management training programs, and teaching, particularly at the secondary level. A political science major also provides an excellent foundation for professional graduate training in law, journalism, public administration or public affairs as well as for graduate work in political science which is essential for a career in higher education. For the non-vocationally oriented student, political science is an excellent major for anyone with a keen interest in politics and public affairs.



PRE-DENTISTRY  
Pre-professional  
(Select Academic Unit)

Patricia Sims  
Health Professions Information Office  
Telephone - 618-536-2147  
Neckers A-160

The SIU pre-dental program meets the general requirements of all United States dental schools. It is designed by the Pre-dental Advisory Committee to prepare students for taking the Dental Admission Test not later than spring of the junior year. The Committee and the Health Professions Information Office are available to offer information and guidance to pre-dental students and to assist in the process of application by furnishing a composite evaluation of each applicant to the dental schools to which he or she applies.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Studies (select)	3	3
GE-C	Humanities	-	3
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well Being	2	-
MATH 108, 109	College Algebra and Trigonometry	3	3
ZOOL 220b <sup>1</sup>	Diversity of Animal Life (Vertebrate)	-	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select)	3	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
CHEM 222a, b <sup>2</sup>	Introduction to Chemical Principles	4	4
PHYS 203a, b	College Physics	3	3
PHYS 253a, b	College Physics Laboratory	1	1
ENG 290 <sup>3</sup>	Intermediate Expository Writing or other	-	3
		<u>17</u>	<u>14</u>

<sup>1</sup>Community college students may substitute one or two semesters of general biology for zoology if the biology courses are intended for science majors.

<sup>2</sup>Students lacking high school chemistry must begin with Chem 115. Chemistry majors or students hoping to enter dental school with only three years of college should plan to complete inorganic and organic chemistry during their first two years. Generally, there is some advantage to finishing pre-dental chemistry requirements at a four-year college.

<sup>3</sup>Dental applicants must have 6 hours credit in courses taught by the Department of English in writing or literature courses; speech does not substitute.

Third and Fourth Years

If all requirements are completed, students may take the Dental Admission Test in spring of their sophomore or fall of their junior years and apply for entry after three years of undergraduate preparation. Most students, however, are admitted to dental schools after four or more years of preparation. Students may choose any major and must complete the departmental, college and University requirements for a degree. No preference among possible majors is given by the professional schools. In addition to required courses, it is recommended that the student choose from among the following courses, as his or her time permits: genetics, cellular biology, embryology, developmental biology, comparative anatomy, microbiology, biochemistry, psychobiology, personality or social psychology. Additional mathematics, statistics, humanities and social sciences will also be helpful.

Dentistry As A Career

Professional training requires four years in the dental school. Specialties beyond general practice require further training. Dentistry is becoming increasingly involved in interdisciplinary practice, focusing on the medical and social aspects of dental health, stressing preventive dental care, and becoming involved in community health care delivery as well as the traditional private practice.

The Association of American Law Schools and the Southern Illinois University School of Law follow the policy that the effectiveness of prelegal study cannot be advanced by prescribing courses of study or extracurricular activities. Instead, primary emphasis is directed toward the development in pre-law students of basic skills and insights through education for comprehension and expression in words, for critical understanding of the human institutions and values with which law deals, and for creative power in thinking. This is best achieved in fields of individual interests and abilities. Subjects which provide stimulating training for one person may do very little to arouse and sharpen the intellect of another. In addition, law touches so many phases of human activity that there is scarcely a subject which is not of value to the law student and to the lawyer. A student is therefore advised to place as much emphasis on the liberal arts as his or her own program of undergraduate study will permit; and within the outlines of that program the following should also be noted:

The essential ability to think precisely and exactly is most likely to be acquired through courses in logic, mathematics, philosophy, and the natural sciences.

Courses in English composition and public speaking develop the power of clear and well-ordered expression. Courses in which students receive intensive faculty critiques of their writing skills are highly recommended. Preparation in composition is essential and preparation in public speaking is of great value.

The fields of history (particularly English and American history), political science, psychology, economics, and sociology are important to an appreciation of human institutions and values and their relation to law.

An understanding of financial statements and of elementary accounting principles has become almost indispensable. Some familiarity with computers is also helpful.

There are opportunities in special types of practice for those who concentrate in particular fields, such as engineering, business administration, chemistry, physics, or agriculture before entering law school.

Refer to the section General Education for the Transfer Student to determine what courses may be taken to satisfy the University's general education requirements.

#### Pre-Law

Pre-Law is not a major in that students cannot receive a degree in Pre-Law. Since most law schools now require applicants to possess a bachelor's degree, students are advised to select a major in the academic unit where they would like to obtain a degree.

## PRE-MEDICINE (INCLUDING OSTEOPATHIC MEDICINE)

Pre-professional  
(Select Academic Unit)

Patricia Sims  
Health Professions Information Office  
Telephone - 618-536-2147  
Neckers A-160

At SIU the pre-medical program is guided by the Pre-medical Advisory Committee. Through the Health Professions Information Office students are able to find information concerning professional schools and their requirements, curriculum guidance, and assistance with the procedures involved in applying to medical or osteopathic medical schools. The curriculum meets the general requirements of all United States medical schools and is designed to provide students with a strong course background on which to base their medical education.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Studies (select)	3	3
GE-C	Humanities (select)	-	3
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
GE-E	Human Health and Well-Being (select)	2	-
MATH 108, 109	College Algebra and Trigonometry	3	3
ZOOL 220b <sup>1</sup>	Diversity of Animal Life (Vertebrate)	-	4
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select)	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
CHEM 222a,b <sup>2</sup>	Introduction to Chemical Principles	4	4
ENG 290	Intermediate Expository Writing	-	3
MATH 150	Calculus	-	4
Electives <sup>3</sup>		<u>3</u>	<u>5</u>
		<u>16</u>	<u>16</u>

<sup>1</sup>Community college students may substitute a year of general biology if the course is intended for science majors.

<sup>2</sup>Students lacking high school chemistry must take Chem 115 prior to Chem 222. Chemistry majors should begin chemistry in the first year.

<sup>3</sup>Community college students are encouraged to complete foreign language and associate degree requirements before transferring. Taking the additional pre-medical sciences at a four-year college is preferred.

## Third and Fourth Years

Pre-medical students must complete organic chemistry and a year of physics in the third year in order to take the Medical College Admission Test in the spring of that year. Application procedures require a year.

Pre-medical students may choose any major in which to earn the bachelor's degree. Requirements of that degree, of the college in which it is granted, and of the University must be met at the same time that pre-medical requirements are taken. If a science major is chosen, there will be considerable overlapping of requirements. Additional courses recommended for pre-medical preparation include genetics, cellular biology, embryology or developmental biology, comparative anatomy, microbiology, biochemistry, psychobiology, additional mathematics, and social sciences. If the major chosen is in the College of Science, a year of foreign language will be required.

## Medicine As A Career

Medical training will require another four academic years, plus residency. Admission to medical schools is extremely competitive. Students can help themselves by making realistic appraisals of their interests and abilities, by planning ahead to meet all requirements and time schedules, and by keeping themselves informed of admission requirements and procedures. They will receive help through the Health Professions Information Office and Pre-medical Advisory Committee.

Medicine today offers both promise and challenge, whether students are interested in becoming primary physicians, physician specialists or medical scientists. Prevention as well as cure, and the extension of health care to all of society have become important goals in the preparation of physicians.

The flexibility with which the pre-medical students at SIU may approach their total undergraduate preparation as well as the quality of the pre-medical requirements make it possible for students to achieve an excellent pre-medical preparation.



PRE-NURSING  
Pre-professional  
(Pre-major Advisement)  
Undergraduate Academic Services

Billie Jacobini  
Pre-Major Advisement Center  
Telephone - 618-453-4351  
Woody Hall, Wing C, Room 117  
or

Mary Goss  
Pre-Major Advisement Center  
Telephone - 618-453-4351  
Woody Hall, Wing C, Room 117

The baccalaureate degree in nursing is offered at Southern Illinois Univeristy at Edwardsville. Students may complete selected General Education and nursing prerequisites at Carbondale during their first three semesters and apply for admission to the School of Nursing at SIU-Edwardsville for the remainder of the baccalaureate program.

The total program is designed for those who wish to become registered nurses or registered nurses who wish: 1) to strengthen their scientific basis for nursing practice, 2) to broaden and deepen their general educational and cultural background, and 3) to obtain a baccalaureate degree to qualify for further study on the graduate level.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 104	The Human Experience - Anthropology	3	-
GE-B 108	The Sociological Perspective	-	3
GE-C 104	Moral Decision	-	3
GE-D 101	English Composition	3	-
GE-D 117	Expository Writing	-	2
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
CHEM 140a,b	Chemistry (inorganic, organic, and biochemistry)	4	4
PHSL 208, 209	Principles of Physiology & Lab	-	4
		<hr/> 16	<hr/> 16
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-B 262	Marriage & Family in Contemporary Society	-	3
GE-C	Select	3	6
GE-C 208	Elementary Logic	-	3
HED 311	Human Growth and Development	3	-
MICRO 301	Principles of Microbiology	4	-
PHSL 301	Survey of Human Anatomy	4	-
PSYC 305	Psychology of Personality	-	3
		<hr/> 17	<hr/> 15

As soon as possible after advisement for the Fall Semester, freshman year, the student should see Mrs. Goss, Nursing Advisor, to initiate application to the School of Nursing at SIUE. Deadline date is at least three quarters prior to the quarter the student is applying for. After three semesters at SIU Carbondale, it takes at least eight quarters to complete the baccalaureate nursing program at SIU Edwardsville.

A grade of 'C' or above is required in all nursing courses, all science courses and nursing prerequisites. Students with an overall 2.5 grade point average (4.0 scale) will be considered admissible up to the limit of available space.

Constitution requirement is still required at Edwardsville.

Students who take GE-B 104, GE-B 202, and GE-B 108 will be considered as having fulfilled the Social Studies requirements for the General Education program at SIUE.

PRE-OPTOMETRY  
Pre-professional  
(Select Academic Unit)

Patricia Sims, Advisor  
Health Professions Information Office  
Telephone - 618-536-2147  
Neckers A-160

Various optometry schools require a minimum of sixty or ninety semester hours of college courses before students can be admitted. However, most of the students admitted in recent years hold a baccalaureate degree. In view of this fact, community college students will be better prepared by fulfilling requirements for an AA degree and postponing some optometry requirements until the third and fourth years.

<u>First Year</u> <sup>1</sup>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B 202	Psychology	-	3
GE-C	Humanities (select)	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
MATH 108, 109	College Algebra and Trigonometry	3	3
ZOOL 220b <sup>2</sup>	Diversity of Animal Life (Vertebrate)	-	4
		<u>16</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-C	Humanities (select)	3	-
CHEM 222a,b <sup>3</sup>	Introduction to Chemical Principles	4	4
MATH 282	Statistics	-	3
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
MATH 150	Calculus I (with analytic geometry)	4	-
	Elective	-	3-5
		<u>15</u>	<u>14-16</u>

<sup>1</sup>See information above concerning course selection.

<sup>2</sup>Community college students may substitute one or two semesters of general biology if it is a course for science majors and if it includes 3-4 hours per week in laboratory.

<sup>3</sup>Chemistry majors or other students hoping to enter optometry school after three years must begin a chemistry sequence in the first year and take organic chemistry in the second in order to take the Optometry College Admissions Test one year prior to optometry school entry. Students with no high school chemistry must begin with CHEM 115.

<sup>4</sup>Any three-hour statistics course taught by business, mathematics, or psychology department is acceptable.

Third and Fourth Years

No degree is given in pre-optometry. Students may choose any major at SIU. Additional requirements of optometry schools include microbiology, organic chemistry, and additional psychology courses. Students interested in Indiana must have a course in either human or comparative anatomy and a year of college level foreign language or two years of high school foreign language.

Recommended courses include child (or developmental) and other psychology, introductory business, genetics, embryology, and cell biology.

Optometry As A Career

Optometry training requires four years in an accredited professional school. The candidates then take a licensing examination.

Career opportunities exist in individual or group practice, in hospitals or eye clinics, in public health agencies, in industrial health programs, and in consultant services to other professions, such as educators in remedial reading, illuminating engineers, or highway safety planners. It is estimated that 20,000 newly trained optometrists will be needed by 1990.

Current changes in pharmacy programs make it imperative that pre-pharmacy students have some particular school in mind and are aware of its requirements. The only Illinois program (University of Illinois at Chicago) now is a Doctor of Pharmacy (Pharm. D.) program requiring two years of preparatory courses such as the following:

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B 108	The Sociological Perspective	-	3
GE-D 101	English Composition	3	-
GE-D 117 or 118	Expository or Technical Report Writing	-	2
CHEM 222a,b	Introduction to Chemical Principles	4	4
MATH 108,109	Algebra-Trigonometry	3	3
PHSL 208 & 209	Principles of Physiology and Lab	-	4
		<u>14</u>	<u>16</u>

Students may need to enroll in additional courses during the summer term to avoid overloads during regular semesters. (See "In Addition" below).

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
CHEM 344, 346	Organic Chemistry	4	2
CHEM 345, 347	Laboratory Techniques	2	3
MATH 140 or 141	Short Course in Calculus	-	4
PHSL 301	Survey of Human Anatomy	-	4
MICR 301	Principles of Microbiology	4	-
Electives	See additional requirements below	-	3
		<u>16</u>	<u>16</u>

#### In Addition

Students must complete fourteen additional hours of general education courses consisting of fine arts (art, music, or drama), physical sciences (astronomy, geology, or physics), and humanities (history or philosophy) before entering the Pharm. D. program. These may be added to the suggested schedule above or taken during summer terms. Accepted students will then spend four years in the professional school.

The nearest B.S. in Pharmacy program is located at the St. Louis College of Pharmacy. Students may take one or, at most, two years of pre-pharmacy courses at SIU and apply to enter as second or third year students in the five-year program. A pharmacy doctorate is also available.

Applicants for the St. Louis program would add economics or government and botany to the first year courses above and delete physiology. During the second year (if taken at SIU), they must include the physiology majors course (PHSL 210), medical terminology, western cultural tradition, and statistics, but may delete calculus, microbiology and speech courses. However, it will be advantageous to the students to be on the pharmacy school campus during the second year in order to begin courses taught only by the pharmacy school.

#### Pharmacy As A Career

Students with an aptitude for science and interest in the pharmaceutical field will find that pharmacy offers a variety of careers. The pharmacist may practice in a retail business, in a hospital or clinic or in public health facilities. In industrial pharmacy there are opportunities in research, manufacturing, quality control, administration and sales. Graduate programs are available for pharmacists who seek advancement to careers requiring a master's or doctoral degree.



### PRE-PHYSICAL THERAPY

Pre-professional  
College of Science

Patricia Sims, Advisor  
Health Professions Information Office  
Telephone - 618-536-2147  
Neckers A-160

SIU offers courses to meet the requirements of any physical therapy school. The curriculum suggested below includes minimum requirements of three Illinois professional schools so that students may apply to more than one school. Admission is extremely competitive. Applicants should have some knowledge about physical therapy and some experience in patient care. Applications must be made nine months to a year in advance of the beginning date at the professional schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	-	4
GE-B 202	Psychology	-	3
GE-C	Humanities (select)	3	-
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
GE-E	Physical Education Activity	2	-
CHEM 222A,b	Introduction to Chemical Principles	4	4
MATH 108, 109	College Algebra and Trigonometry	3	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-C	Humanities (select)	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Physical Education Activity	2	-
PHSL 210	Introductory Human Physiology or other approved Physiology course	-	4-5
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
PSYCH 301	Child Psychology	3	-
PSYCH 305	Personality Psychology	3	-
PSYCH 431	Psychopathology	-	3
ZOOL 220b	Diversity of Animal Life (Vertebrate)	4	-
		<u>16</u>	<u>17-18</u>

Also required: current certification in cardiopulmonary resuscitation (CPR) and in first aid.

Recommended electives include Anatomy (PHSL 301), Kinesiology (PE 302 or 303), Psychobiology (PSYC 302), sports or skill oriented physical education courses, additional social science courses. Students may prefer to attend summer or spread pre-physical therapy course work through more than two years.

### Third and Fourth Years

Students who complete training at Northwestern University will remain at SIU for a third year as admission there requires a minimum of ninety semester hours. During the third year students should work toward requirements for a degree in an SIU program inasmuch as they will not know whether their applications are successful until late in the year. If admitted, the professional training at Northwestern is completed in fifteen consecutive months.

Students who complete training in any of the other three Illinois PT programs will spend two academic years in the professional school. Admission requires a minimum of sixty semester hours plus physical education hours. A baccalaureate degree in physical thereapy is awarded by the professional schools.

STUDENTS WHO DECIDE TO REMAIN AT SIU FOR A BACCALAUREATE DEGREE MUST CONSULT AN ACADEMIC ADVISOR IMMEDIATELY AND PLAN A CURRICULUM LEADING TO A DEGREE IN AN APPROVED PROGRAM. The pre-physical therapy curriculum does not lead to any SIU degree, nor does it guarantee admission into a professional school.

New requirements are expected. Entry level into the physical therapy program is expected to require a masters by 1990. Schools are now planning changes in their programs to achieve that goal.

## PRE-VETERINARY MEDICINE

Pre-professional  
(Select Academic Unit)

Patricia Sims, Advisor  
Health Professions Information Office  
Telephone - 618-536-2147  
Neckers A-160

This curriculum is based on the requirements for application to University of Illinois College of Veterinary Medicine. Although students may apply to professional school after two years undergraduate preparation, most accepted students have completed a degree. Students may choose to spread the required pre-veterinary sciences through a third year. If a degree is to be completed, a major may be chosen in either the School of Agriculture or the College of Science.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 118	Introductory Zoology	4	-
GE-B	Social Studies (select)	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select)	-	2
GE-E	Human Health and Well Being (select)	-	2
BOT 200 <sup>1</sup>	General Botany and Laboratory	-	4
MATH 108, 109	College Algebra and Trigonometry	3	3
GE-C	Humanities (select)	-	3
ANI 121	Science of Animals	3	-
ANI 122	Production and Processing Practices	1	-
		<u>14</u>	<u>17</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-B	Social Studies (select)	3	3
GE-C	Humanities (select)	3	-
GE-E	Human Health and Well Being	-	2
PHYS 203a,b	College Physics	3	3
PHYS 253a,b	College Physics Laboratory	1	1
BIOL 305	Genetics-Classical and Molecular	-	3
CHEM 222a,b	Introduction to Chemical Principles	4	4
		<u>17</u>	<u>16</u>

<sup>1</sup> Community college students should substitute general biology if available for zoology and botany listed. Eight hours of biological sciences (with laboratory experience) suitable for science majors is required.

### Third and Fourth Years

Students must complete organic chemistry and biochemistry. In addition to required pre-veterinary courses, there are recommended courses from which the student may choose in accordance with his or her available time. These include Horses, Animal Nutrition, Behavioral Manipulation of Animals, Vertebrate Zoology, Comparative Anatomy, Cell Physiology, Environmental Biology, and Organismic Functional Biology.

No degree is given in pre-veterinary studies. Students should choose an academic major in a science or in animal industries and complete its requirements simultaneously with the admission requirements of the veterinary school. Admission is competitive and is usually granted to students with much more than minimum preparation. Most first year veterinary students have four or more years of pre-veterinary education.

### Veterinary Medicine As A Career

After acceptance into the professional school, completion of training in veterinary medicine requires four years. Illinois residents are effectively limited to applying to the University of Illinois because other veterinary schools accept residents of their own states or of states having no veterinary school. With the diversity of offerings at SIU, however, the pre-veterinary students have an opportunity to develop related or alternate interests at the same time that they are preparing themselves to apply to the veterinary school.

Professional veterinarians have a wide variety of career choices. They may choose small animal practice, livestock disease prevention and control, meat inspection, control of diseases transmitted from animal to man, supervision of interstate movement of animals, or research in animal disease or in drugs used in animal care.

The psychology major consists of thirteen psychology courses including GE-B 202 for a total of 40 hours. College algebra or finite mathematics is also required. See the Undergraduate Catalog for the specific psychology requirements.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Introduction to Psychology	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1</sup>	-	2
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
MATH 108, 116 or 139	Finite Mathematics or College Algebra <sup>2</sup>	-	3-5
Elective <sup>3</sup>		3	3
		<u>14</u>	<u>16-18</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	-	3
FL	Foreign Language <sup>4</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
PSYC	Psychology Elective	3	3
Elective <sup>3</sup>		-	3
		<u>13</u>	<u>16</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Besides being a required course for a major in Psychology, this math course may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later (see College of Liberal Arts section).

<sup>3</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

#### Psychology As A Major

The major program serves three main classes of students: 1) those who wish an interesting major but who plan no postgraduate academic work, 2) those who plan non-psychology graduate work for which an undergraduate major may be useful (e.g., medical school, social welfare, rehabilitation counseling), and 3) those preparing for graduate work in psychology. As a consequence, the program is aimed at providing broad general education rather than training in specialized psychological skills.

Representative First Job Titles: Alcoholism & Drug Addiction Researcher, Child Care Worker, Sales Agent, Senior Citizens Center (Director), Prisoner Classification Interviewer, Probation and Parole Incharge, Rehabilitation and Resettlement Personnel, Claims Authorizer, Drug Abuse Counselor, Mental Health Clinic Technician.



## RADIO-TELEVISION

College of Communications and Fine Arts  
(Bachelor of Arts)

Randy Welker, Chairperson  
Telephone 618-536-7555  
Communications Building, Rm 1056

A major in Radio-Television may be pursued through the College of Communications and Fine Arts. The program leads to the Bachelor of Arts degree. The program is designed to prepare students for leadership positions in the broadcasting industry or in related fields. As a part of the educational experience, students are encouraged to gain actual experience in any phase of broadcasting at the University-operated stations or local stations. Student are encouraged to focus their studies in one of three specializations: 1) Broadcast News, 2) Broadcast Production, or 3) Broadcast Sales and Management.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 101	Conceptual Insights into Modern Communication Systems	3	-
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	3
*GE-D 101, & 117 or 119	English Composition <sup>2</sup> & Expository or Creative Writing <sup>2</sup>	3	2
GE-D 152 or GE-D 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	<u>2</u> 14	<u>1</u> 15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	1	-
*R&T 300m	Intro. to Broadcast Writing, Performance, and Production <sup>3</sup>	3	-
*R&T 300p	History and Foundations of Broadcasting <sup>3</sup>	-	3
Elective	Advanced Courses beyond GE level Foreign Language or Computer Science	<u>-</u> 3-4 13-14	<u>3</u> 3-4 15-16

\*Required courses for a major in Radio-Television.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Each student in Radio and Television must complete GE-D 101 and 117 or 119 with a grade of 'B' by the end of his or her sophomore year or a grade of 'C' in English 290 (Advanced Composition) in order to take advanced courses in Radio-Television. Students must also demonstrate a typing ability of 30 words per minute.

<sup>3</sup>Radio-Television 300M and 300P are required of all majors before enrollment in other Radio-Television courses is permitted. Both RT 300M and 300P must be passed with a grade of 'C' or better.

### Transfer of Broadcasting Credits

Transfer students with broadcasting credits in content covered by RT 300M and/or RT 300P may qualify for a Competency Test over that curriculum. If the 300M and/or 300P test is passed, the student need not repeat 300M and/or 300P at SIU. Other broadcasting credits from two-year institutions will apply toward the major but not as equivalencies to any specific SIU Radio-Television courses.

A minor of 15 hours is required of all students in Radio-Television. The minor should include courses in a single discipline outside the department and include courses beyond the GE level. Students should consult with their academic advisor for specific recommendations.

The major in Radio-Television consists of 35-38 hours minimum in Radio-TV coursework. Of those, 19 hours are required of all majors: RT 300M, RT 300P, RT 305, RT 308, RT 340, and RT 393. In addition, students are expected to develop a specialization in a single area by taking three or four concentrated courses in either News, Production, or Management. Students are also required to complete an 8 semester-hour block in computer programming or foreign language.

The Department of Radio-Television, with over 600 majors, is one of the largest and most respected programs of its kind in the nation. It boasts a placement record of close to 90 percent of its graduates.

Representative First Job Titles: Producer, Director, Sales Representative, News Writer, Copywriter, News Reporter, Newscaster, Announcer, Program Director, Sales Manager, Researcher, Community Affairs Director, Disc Jockey, Station Manager, Broadcast Engineer, Radio Account Executive, Camera Technician, Scriptwriter, News and Assignment Editor, Continuity Director.

Radiography is an allied health specialty concerned with the production of x-ray films which enable the physician to diagnose disease processes occurring in the human body.

The curriculum is designed to prepare students to become registered radiologic technologists. Completion of the course provides graduates with the educational requirements necessary to take the national certification examination administered by the American Registry of Radiologic Technologists.

To be accepted into the radiologic technology degree program the student must have completed the general education courses designated under "first year" below. The advanced radiologic technology courses combine classroom and clinical education which upon completion allows the graduate to become registry eligible and to receive an associate in applied science degree in radiologic technology.

#### FIRST YEAR - "PRE-REQUISITES"

<u>Fall</u>		<u>Lecture</u>	<u>Lab</u>	<u>Clinic</u>	<u>Credits</u>
GE-D 107	Intermediate Algebra	3	0	0	3
GE-D 152 or	Interpersonal Communication or	3	0	0	3
GE-D 153	Public Speaking	3	0	0	3
AHC 141	Intro to Physiology & Human Anatomy	4	0	0	4
AHC	Secondary Specialty-Allied Health	6	0	0	6
					<u>16</u>
<u>Spring</u>					
GE-A 106 or	Chemistry or	3	0	0	3
STC 107	Applied Physics	3	2	0	4
GE-B 202	Introduction to Psychology	3	0	0	3
GE-D 101	English Composition	3	0	0	3
AHC	Secondary Specialty-Allied Health	6	0	0	6
					<u>15/16</u>

#### SECOND YEAR - "PROFESSIONAL COURSES"

<u>Fall</u>		<u>Lecture</u>	<u>Lab</u>	<u>Clinic</u>	<u>Credits</u>
AHC 102	Introduction to Radiologic Technology & Radiographic Technique	4	0	0	4
AHC 112	Anatomy & Positioning I (8 wks.)	3	6	0	3
AHC 132	Anatomy & Positioning II (8 wks.)	3	6	0	3
AHC 202	Radiographic Physics	3	0	0	3
					<u>13</u>
<u>Spring</u>					
AHC 222	Clinic I (16 weeks)	0	0	36	10
AHC 372A	Film Critique I	4	0	0	2
					<u>12</u>
<u>Summer</u>					
AHC 212	Special Procedures	4	0	0	2
AHC 232	Selected Systems Radiography	6	4	0	4
					<u>6</u>

#### THIRD YEAR - "PROFESSIONAL COURSES"

<u>Fall</u>		<u>Lecture</u>	<u>Lab</u>	<u>Clinic</u>	<u>Credits</u>
AHC 332	Clinic II (16 weeks)	0	0	36	10
AHC 372B	Film Critique II	4	0	0	2
					<u>12</u>
<u>Spring</u>					
AHC 312	Radiographic Pathology	3	0	0	3
AHC 322	Cross-Sectional Anatomy & Radiographic Computerization	3	2	0	4
AHC 342	Radiation Biology, Therapy & Nuclear Medicine	2	0	0	2
AHC 352	Special Imaging Modalities	4	0	0	4
					<u>13</u>
<u>Summer</u>					
AHC 362	Clinic III (8 wks.)	0	0	40	4
AHC 372C	Film Critique (2 wks.)	16	0	0	2
					<u>6</u>

Available clinical facilities restrict program enrollment. Interested persons should contact both New Student Admission Services and the Division of Allied Health and Public Service. Special application materials are included in the requirements for admission to the program.

All application materials to the University and to the program for Fall 1987 should be on file no later than February 27, 1987. Selection of the fall class will be completed soon after that date. Applications completed after that date may be considered as space is available at the discretion of the admissions committee.

RECREATION  
(Program Services)  
(Therapeutic Recreation)  
College of Education  
(Bachelor of Science)

Dr. John Allen, Chairperson  
Telephone - 618-453-4331  
Faner Hall, Room 4026

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone 618-453-2354  
Wham Building, Room 135

The Department of Recreation prepares the student for positions in the management of leisure time pursuits.

The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering practicums, supervised field experiences, and internships in various recreation settings throughout Illinois and the nation.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select physical) <sup>1,2</sup>	3	3
*GE-B 108	The Sociological Perspective	3	-
**GE-B 202	Introduction to Psychology	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118, or 119	Writing (select) <sup>1</sup>	-	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
**REC 300	Introduction to Leisure and Recreation	3	-
**REC 302	Recreation Program Leadership	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
*GE-A 240	Ecology	3	-
*GE-A	Science (select biological)	-	3
*GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 107	Intermediate Algebra	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	P.E. Activity <sup>1</sup>	-	2
**REC 305	Recreation Programming and Leadership	-	3
**HED 334	Standard First Aid	-	2
ACCT or PSYCHOLOGY	Electives	<u>3</u>	<u>3</u>
		<u>15</u>	<u>16</u>

<sup>1</sup>Refer to section General Education for the Transfer Student. See also the Undergraduate Catalog for specific departmental requirements.

<sup>2</sup>Therapeutic Recreation specialization requires a course in physiology approved by the department.

\*Recommended, not required.

\*\*Departmental requirements.

Recreation As A Major

Each student is expected to choose courses which will give a broad background in recreational activities and skills.

Students concentrating in recreation are encouraged to obtain the following certificates: American Red Cross Life Saving and Water Certificate, American Camping Association Campcraft Certificate, workshop certificates in recreation sponsored by the state and national recreation and park associations, and other certificates in instructional areas are desirable in preparation for positions in recreation management.

Representative First Job Titles: State Social Service Career Trainee, State Recreation Worker, Recreation Specialist, Activity Director, Recreation Supervisor, Operations Manager, Field Instructor, Program Director, Recreational Therapist.



If you are interested in any one or more of the following questions, think seriously about doing some work in Religious Studies: 1) Does my religious faith need to be examined and refined? 2) Am I suspicious that religion may be doing more harm than good? 3) Do I get involved in arguments about religion with other students? 4) Is modern society doomed because people are losing religious faith? Or because the churches are not doing the right things? 5) Is religion outdated in the modern world? 6) Are all religions basically alike? Or do they have serious differences and conflicts? 7) What do non-Christians believe?

Any one question or combination of these questions makes Religious Studies a fruitful and exciting academic program.

The study of religion, like politics, economics, the arts and technology, is one of the major ways of understanding what makes people behave as they do. Religion is one of the world's oldest modes of behavior, both social and individual. The Religious Studies Department does not promote any one religion; rather it provides a neutral territory for comparing religious options, both old and new. Such a study is particularly useful for anyone who wants to work with people.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
FL	Foreign Language <sup>2</sup>	4	4
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
		<u>15</u>	<u>14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C 215	Types of Religion	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
MATH or CS	Math or Computer Science <sup>3</sup>	-	3
RELS 201	Issues in Religion	-	3
Elective <sup>4</sup>		4	3
		<u>16</u>	<u>15</u>

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit. Greek or Hebrew is recommended.

<sup>3</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>4</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

#### Religious Studies As A Major

The primary prerequisite for a major in Religious Studies is not any one course, but rather, an open minded interest in the academic study of religion. To discover whether such interest exists, a student is advised (a) to take GE-C 215 plus one elective before the end of the sophomore year; and (b) to confer with the Director of Undergraduate Studies, Faner 3042. In some instances, the department permits a student to receive major credit for courses taken in departments other than Religious Studies.

Representative First Job Titles: Director of Religious Education.

RESPIRATORY THERAPY  
School of Technical Careers  
(Associate in Applied Science)

Stanley Pearson  
Program Coordinator  
Telephone 618-536-6682  
STC Building, Room 137

Respiratory therapy is an allied health specialty concerned with the treatment, management, control, and care of patients with deficiencies and abnormalities associated with respiration. It involves the therapeutic use of medical gases and administering apparatus, environmental control systems, medications, ventilatory control and breathing exercises, cardiopulmonary resuscitation, and measures and maintenance on natural, artificial, and mechanical airways.

The respiratory therapy curriculum is designed to prepare students to become registered respiratory therapists. Completion of the course provides graduates with the educational requirements necessary to take the national registry examination administered by the National Board of Respiratory Care (NBRC) and the Pulmonary Specialty Exam (CPFT).

Available clinical facilities restrict program enrollment. Interested persons should contact both New Student Admission Services and the Division of Allied Health and Public Service. Special application materials are included in the requirements for admission to the program.

All application materials to the University and to the program for Fall 1987 should be on file no later than February 27, 1987. Selection of the fall class will be completed soon after that date. Applications completed after that date may be considered for acceptance as space is available and at the discretion of the admissions committee.

It is highly recommended the student complete all pre-requisites before starting the professional sequence.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A 106	Chemistry	3	-
GE-A 115	Biology	3	-
GE-B 202	Psychology	-	3
GE-D 101	English Composition	3	-
GE-D 107	Algebra	3	-
GE-D 152	Interpersonal Communication	-	3
STC 107a	Physics	-	2
AHC 141	Intro to Physiology & Human Anatomy	-	4
MICRO 201	Microbiology	-	4
***AHC	Elective	6	3
		<u>15</u>	<u>19</u>

<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
AHC 203	Principles of Respiratory Therapy	5	-
AHC 213	Respiratory Therapy Exercises	1	-
AHC 223	Patient Care Techniques	2	-
AHC 243	Cardiopulmonary Physiology	3	-
AHC 253	Clinical Practice I	1	-
AHC 263	Principles of Mechanical Ventilation	-	3
AHC 273	Mechanical Ventilation Laboratory	-	1
AHC 283	Survey of Pulmonary Diseases	3	-
AHC 293	Clinical Practice II	-	2
AHC 323	Respiratory Pathophysiology	-	3
AHC 343	Neonatal/Pediatric Respiratory Care	-	2
AHC 363	Pulmonary Evaluation and Monitoring	-	3
***AHC	Elective	-	3
		<u>15</u>	<u>17</u>

		<u>Summer</u>
AHC 300	Trends and Issues in Allied Health	3
AHC 313	Pharmacology	3
		<u>6</u>

<u>Third Year</u>		<u>Fall</u>
AHC 353	Clinical Internship	8
AHC 373a	Clinical Practice III - Special Procedures	2
AHC 353b	Clinical Practice III - Research Project	2
		<u>12</u>

\*\*\*AHC electives (twelve credit hours) must be approved by the respiratory therapy advisor.

SEE ALLIED HEALTH CAREER SPECIALTIES

Programs of study in foreign languages leading to the Bachelor of Arts degree (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish. There is also a special major in East Asian Studies leading to the Bachelor of Arts degree for students who have a professional or occupational interest in Asia. Students wishing to work towards this major are encouraged to take an Asian language.

Students majoring in a foreign language usually begin at the second or third level. The student who has taken two years of one foreign language in high school (or equivalent) has the option to earn proficiency credit through taking a proficiency exam in French, German, Latin, Spanish at the Testing Center, or in Chinese, Greek, Japanese, Russian, at the Foreign Languages and Literatures Department. For additional credit, students with more than two years are encouraged to take a validating course. Students with four years in one foreign language at the high school level are encouraged to continue with that language. Since proficiency credit of up to 16 hours is available, such students are in an advantageous position to complete a double major.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment and career possibilities that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas where language proficiency is a supporting factor, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
RUSS 136a,b	Elementary Russian <sup>2</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
GE-D 107	Intermediate Algebra	-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
RUSS 201a,b	Intermediate Russian <sup>3</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>2</sup>	2	-
MATH or CS Elective	Math or Computer Science <sup>4</sup>	-	3
		<u>15</u>	<u>16</u>

\*See also Foreign Language Education under the College of Education.

<sup>1</sup>See General Education for the Transfer Student.

<sup>2</sup>The first year of Russian does not count toward the major.

<sup>3</sup>Required by major. Students with more than one year of high school Russian should take at least one substantial course in the Russian major each semester.

<sup>4</sup>One of these courses may be used to partially fulfill the Liberal Arts requirements for students beginning college anywhere Fall 1978 or later.

#### Russian As A Major

A major in Russian consists of 36 semester hours in courses above the 100 level with a minimum of 12 hours on the 300 level, 12 hours on the 400 level including at least one literature course, and 4 hours of 300 or 400 level Russian electives. FL 436, Methods in Teaching Modern Foreign Languages, is required if the student wishes to be certified to teach. A minor in Russian consists of 18 semester hours in courses above the 100 level.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.



## SECRETARIAL AND OFFICE SPECIALITIES

School of Technical Careers  
(Associate in Applied Science)

Barbara Morgan  
Program Coordinator  
Telephone-618-536-6682  
STC Building, Room 107

Current developments in office systems and related technology are opening up many opportunities for information support personnel with special interests and extensive, specialized skills. Both men and women find rewarding careers in legal, medical, and administrative support, information and word processing systems, and court reporting fields. Students are not forced into a mold. They gain office skills through a core of basic courses, and then draw from a variety of technical and business programs.

### SPECIAL OPTION FOR STUDENTS WITH WORK EXPERIENCE OR ADVANCED SECONDARY TRAINING

Students who have an excellent background in office skills may be eligible for the Program of Advanced Curriculum Entry (PACE). This allows completion of an associate degree in one summer and one year. A two-year degree from a major university for one year of college work is now possible. Most instruction is individualized. A placement/proficiency test is given in the area of typewriting and shorthand. We award college credit for course work you are not required to take.

#### Secretarial Skills As A Major

Basic requirements are the same for legal, medical, and administrative secretarial and word processing. These are usually taken the first year:

SCR 101 a,b,c,d (10)	Keyboarding
SCR 102 a,b,c,d (10)	Shorthand
SCR 104 (3,5)	Introduction to Machine Transcription
SCR 107 (2)	Filing
SCR 109 (3)	Calculating Machines
SCR 201 (4)	Co-op Work Experience
SCR 208 (3)	Business Law I
STC 120 (3)	Fiscal Aspects of Technical Careers (Accounting)
GED 118 (2)	Technical Report Writing (Specialized Section)
VES 302 (3)	Business Communication
GED 152 (3)	Interpersonal Communication
GED 101 (3)	English Composition

Specialty requirements are usually met during the second year. The specialty requirements for the legal secretarial area are:

SCR 209 (3)	Applied Law II
SCR 220 (4)	Legal Document Production
SCR 222a,b (6)	Legal Terminology/Shorthand
SCR 223 (3)	Legal Administrative Support Procedures
GEB 212 (3)	American Government and Politics

Persons completing the legal secretarial program will be eligible to be admitted under the capstone program into the paralegal program in the SIU College of Liberal Arts.

Specialty requirements for the medical program are:

SCR 211 (3)	Health Insurance Processing
SCR 212a,b (6)	Medical Terminology/Transcription
SCR 213 (4)	Medical Administrative Support Procedures
GEB 202 (3)	Introduction to Psychology
AHC 141 (4)	Anatomy and Physiology

Specialty requirements for the administrative program are:

SCR 205 (2)	Office Management and Supervision
SCR 233 (3)	Administrative Document Production
SCR 232 (3)	Advanced Shorthand
SCR 230 (4)	Administrative Support Procedures
GEB 202 (3)	Introduction to Psychology

Specialty requirements for the word processing area are:

SCR 140 (3)	Word Processing Concepts
SCR 205 (2)	Office Management and Supervision
SCR 233 (3)	Administrative Support Procedures
SCR 240 (3)	Word Processing Applications I
SCR 241 (3)	Word Processing Applications II
SCR 242 (3)	Word Processing Operations and Control
EDP 107 (3)	Electronic Data Processing Concepts
GED 202 (3)	Introduction to Psychology

Shorthand is not a requirement but a suggested elective for the medical and the word processing curricula.

Court Reporting As A Major

Court and conference reporting requires a summer session in addition to the four semesters of the associate degree program. The court and conference reporter specialty includes a minimum of 40 hours of courtroom experience.

Students entering court reporting must be able to type 30 words per minute. Good language skills are recommended.

Students enrolled in court reporting are required to purchase a shorthand machine at the end of their first year. Students rent a machine during the first year in the program.

Requirements for the reporting specialties are:

SCR 101 a,b,c,d (10)	Keyboarding
SCR 183 a,b,c,d (7.5)	Machine Shorthand
SCR 185 (2.5)	Introduction to Legal Testimony
SCR 184 (3.5)	Pre-Transcription Skills for Court Reporters
SCR 180 (1)	Introduction to Court Reporting
SCR 182 (3)	Legal Terminology
GED 101 (3)	English Composition
GED 118 (2)	Technical Report Writing
VES 302 (3)	Business Communication
GEB 212 (3)	American Government
SCR 209 (3)	Applied Law II
SCR 212a (3)	Medical Terminology
SCR 285 (3)	Legal Testimony I
SCR 286 (3)	Literary Medical I
SCR 287 (3)	Legal Testimony II
SCR 288 (3)	Literary Medical II
SCR 385 (3)	Legal Testimony III
SCR 386 (3)	Literary Medical III
SCR 387 (3)	Court Practicum
AHC 141 (4)	Anatomy and Physiology

The court reporting program includes training in computer-aided transcription which enables a court reporter to have transcripts of materials prepared immediately.

Advisory committees serve the secretarial skills area and the court reporting area.

Graduates of the program are limited only by their own willingness to locate in a specific area.

For more specific information contact:

Barbara Morgan, Coordinator  
Secretarial and Office Specialties

SOCIAL STUDIES  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Billy Dixon, Chairperson  
Telephone - 618-536-2441  
Wham Building, Room 327

A major in Social Studies may be pursued through the Department of Curriculum, Instruction and Media in the College of Education. Course work includes the areas of history, political science, economics, geography, and anthropology - psychology - sociology. Such a major is designed to prepare individuals for teaching in junior and senior high schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
*GE-A 330	Weather	-	3
*GE-B 104	The Human Experience: Anthropology	3	-
*GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
*GE-B 212	Intro. to American Government & Politics <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117, 118, or 119	Writing (select) <sup>1,2</sup>	-	2
GE-D 153	Public Speaking <sup>2</sup>	-	3
GE-E 201	Healthful Living <sup>2</sup>	-	2
*POL SCI 213 or HIST 205A	State and Local Government History of Western Civilization	- -	3 -
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
*GE-B 301	Modern America from 1877 to Present <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-C	English Humanities Elective (required) <sup>2</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being--activity <sup>2</sup>	-	2
*ECON 214	Introduction to Macroeconomics	-	3
*SOC 301	Principles of Sociology	-	4
HIST 205B	History of Western Civilization	3	-
*HIST 300	Orgins of Modern America, 1492 to 1877 <sup>2</sup>	3	-
		<u>15</u>	<u>15</u>

\*Required courses in Social Studies.

<sup>1</sup> Refer to the section General Education for the Transfer Student.

<sup>2</sup> Required courses for teacher certification include: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics, or GE-B 301 U.S. History; GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical Report or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education activity; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

Social Studies As A Major

Students should be aware of requirements for entrance into the Teacher Education Program, which are described in another section of this book.



## SOCIAL WORK

Division of Social and Community Services  
College of Human Resources  
(Bachelor of Science)

Divisional Executive Officer  
Telephone - 618-453-2243  
Quigley Hall, Room 4

The Social Work program at SIU offers a professional accredited curriculum which is designed to meet the educational needs of students with career interests in the human services field. It leads to a Bachelor of Science degree in Social Work. The curriculum provides an interdisciplinary approach to understanding man in contemporary society, basic social problems, and some of the issues associated with the prevention and treatment of these problems. Students are helped to understand the principles and basic skills employed in developing and delivering services to individuals, families, groups, and communities. Students are prepared for direct service practice in both rural and urban settings. Positions in child welfare, gerontology, mental health, health services, women's programs, public and private social service agencies are typically available to graduates.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-B 108	Sociological Perspective <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 107	Intermediate Algebra	3	-
GE-D 101 & 117,			
118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	<u>1</u>	<u>2</u>
		15	13
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-A/B/C	(select) <sup>1</sup>	-	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 152	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	1	-
SW 375	Social Welfare as a Social Institution <sup>3</sup>	-	3
Electives		<u>5</u>	<u>6</u>
		15	15

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the selection, General Education for the Transfer Student.

<sup>2</sup>Students are required to take these Area B courses.

<sup>3</sup>This course is required for a Social Work major. For specific information regarding the acceptability of a major requirements from a junior college, the Director of the division may be contacted.

## Third and Fourth Years

The last two years of a student's program concentrate on specific professional objectives.

A unique aspect of the Social Work program is an intensive field practicum. The practicum provides an opportunity to integrate theoretical knowledge and helping skills learned in the classroom with the "real world" settings of southern Illinois social services agencies. A concurrent weekly seminar supports this integration of theory and practice.

Representative First Job Titles: Social Worker, Social Welfare Aide, Rehabilitation Counselor, Casework Assistant, Neighborhood Worker, Residential Welfare Facilitator, School Counselor, Employment Aide, Cooperative Extension Service Worker, Recreation Worker, Alcoholism & Drug Addiction Counselor, Child Placement Agent, Community Planning & Redevelopment Expert, Probation and Parole, Case Aide, Medical Social Worker, Outreach Worker, Residential Care Worker, Mental Health Worker, Activities Director.

Sociology is the science of society. It explains how human groups, institutions and social movements shape our lives. Sociology has always been a discipline which prepares students to think and act critically in the practical details of life. Sociology students, therefore, study such topics as sex roles, the city, juvenile delinquency, marriage and the family, criminology, social change, complex organizations, power and social inequality.

Training in Sociology is basic both to creative living and to such practical tasks as the development and effective working of businesses, families, community service agencies, political movements and parties, churches, social clubs, government, industry and schools.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 107	Intermediate Algebra	3	-
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
MATH or CS	Math or Computer Science <sup>2</sup>	-	3
Elective <sup>3</sup>		3	-
		<u>14</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
FL	Foreign Language <sup>4</sup>	4	4
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
SOC 301	Principles of Sociology <sup>5</sup>	-	4
Elective <sup>3</sup>		3	3
		<u>16</u>	<u>14</u>

<sup>1</sup>See General Education for the Transfer Student.

<sup>2</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

<sup>3</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>5</sup>Required for the sociology major.

#### Sociology As A Major

The Department of Sociology offers two alternative plans of study for completion of its major.

General Sociology is for those seeking a broad academic background in sociology and is usually chosen either by those who want a general liberal arts education in the social sciences or those anticipating graduate study in one of the social sciences. Applied Sociology combines the general program in sociology with individually planned programs built around applied courses and field work experience. This program is designed to give people actual experience in a variety of applied settings and to enhance mastery of specific skills sought by employers. Such employers might include research institutes, women's centers, senior citizen centers and community planning agencies.

Representative First Job Titles: Administrative Aide (Gov't.), Business Management Officer, Child Care Worker, Corrections/Parole Officer, Community Relations Personnel, Gerontologist, Labor Relations Specialist, Public Survey Analyst, Social Analyst, Social Stratification Analyst, Teacher, Urban Planner, Administrative Aide.

Programs of study in foreign languages leading to the Bachelor of Arts degree (with or without teacher certification) are offered in Classics, French, German, Russian, and Spanish. There is also a special major in East Asian Studies leading to the Bachelor of Arts degree for students who have a professional or occupational interest in Asia. Students wishing to work towards this major are encouraged to take an Asian language.

Students majoring in a foreign language usually begin at the second or third level. The student who has taken two years of one foreign language in high school (or equivalent) has the option to earn proficiency credit through taking a proficiency exam in French, German, Latin, Spanish at the Testing Center, or in Chinese, Greek, Japanese, Russian, at the Foreign Languages and Literatures Department. For additional credit, students with more than two years are encouraged to take a validating course. Students with four years in one foreign language at the high school level are encouraged to continue with that language. Since proficiency credit of up to 16 hours is available, such students are in a position to complete a double major.

In addition to the personal satisfaction and substantial growth in intellectual resources that come with mastery of a new language, there are numerous types of employment that are opened up by appropriate training in foreign languages. These can be classified as: 1) employment in non-language areas, and 2) language-centered careers. Government agencies (federal, state, and many local), and businesses that have international dealings, employ great numbers of individuals on the basis of skills that are basically non-linguistic (scientists, engineers, librarians, social workers).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
SPAN 140a,b	First-year Spanish <sup>2</sup>	4	4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	-
GE-D 107	Intermediate Algebra	-	3
		<hr/> 15	<hr/> 15
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
SPAN 201a,b	Second-year Spanish <sup>3</sup>	3	3
SPAN 220a,b	Spanish Conversation <sup>4</sup>	2	2
MATH or CS	Math or Computer Science <sup>5</sup>	-	3
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
		<hr/> 14	<hr/> 16

\*See also the program under the College of Education.

<sup>1</sup>See General Education for the Transfer Student.

<sup>2</sup>The first year of Spanish does not count towards the major. Spanish 175-5 may substitute for 140 a,b.

<sup>3</sup>Required by the major. Spanish 275-5 may substitute for 201 a,b. Students with more than one year of high school Spanish should take at least one substantial course in the Spanish major each semester.

<sup>4</sup>Only one semester of Intermediate Conversation may count towards the major.

<sup>5</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

Spanish As A Major: A major in Spanish consists of 36 semester hours in courses above the 100 level with at least 12 hours on the 300 level (to include 306, 320, and one 300 level literature course) and 12 hours on the 400 level (to include Spanish 415). A summer travel-study program in Mexico is available.

A minor in Spanish consists of 18 hours in courses above the 100-level.

Transfer students who major in a foreign language must complete a minimum of 12 semester hours in language courses at SIU.

Representative First Job Titles: Airline Stewardess, Customer Services Personnel, Public Relations Officer, Publications Personnel, Executive Secretary, Announcer, Continuity Writer, Copywriter, Correspondent, Critical Writer, Editorial Writer, Feature Writer, Program Assistant, Reporter, Assistant Librarian, Rewriter, Technical Writer, Educational Television Staff, Manufacturer's Representative, Sales Agent, Recreation Specialist, Interpreter.



SPECIAL EDUCATION  
College of Education  
(Bachelor of Science)

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Dr. Norma Ewing, Chairperson  
Telephone - 618-453-2311  
Pulliam Hall, Room 127

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Certificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 144 to 149 hour program.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	3	-
GE-C 100	Music Understanding	-	2
GE-C 101	Introduction to Art	-	3
GE-D 101	English Composition <sup>2</sup>	3	-
GE-D 117 or 119	Expository or Creative Writing <sup>2</sup>	-	2
MATH 114	Algebraic & Arithmetic Systems	4	-
GE-E 201	Healthful Living <sup>2</sup>	-	2
GE-E	P.E. Activity <sup>1,2</sup>	2	-
Electives		-	3
		<u>15</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B 202	Introduction to Psychology <sup>2</sup>	3	-
GE-B 212 or 301	Introduction to American Government or U. S. History <sup>2</sup>	-	3
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-C	Literature (select) <sup>1,2</sup>	-	3
GE-D 152 or 153	Public Speaking or Interpersonal Communication <sup>2</sup>	3	-
MUS 101	Music Fundamentals	2	-
MUS 302	Music in Special Education	-	3
MATH 314	Topics in Mathematics for Elementary Teachers	4	-
SPED 400	Introduction to Special Education	-	3
		<u>15</u>	<u>16 (15)</u>

<sup>1</sup>Refer to the section General Education for the Transfer Student.

<sup>2</sup>The following are required courses for teacher certification: GE-B 202, Introduction to Psychology; GE-B 212, American Government OR GE-B 301, History of the United States; GE-C 100, Music Understanding; GE-C 101, Introduction to Art, or GE-C 205, Innovation for the Contemporary Environment; Music 101, Fundamentals of Music for GE-C (substitution); GE-D 101, English Composition; GE-D 117, 118 or 119, Expository, Technical or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours) Physical Education activity; GE-E 201, Healthful Living; and one additional English course (GE-C, GE-D or departmental).

### SPEECH COMMUNICATION

(Communication Arts and Studies)  
College of Communications and  
Fine Arts  
(Bachelor of Science)

Doron Claiborne, Advisement  
Telephone - 618-453-2291  
Communications Bldg, Room 2002

Many careers demand the ability to communicate well. The Department of Speech Communication, with 16 professors, many having national and international scholarly reputations, teaches a wide range of courses in the history, theory and successful use of communication. The Department also sponsors co-curricular activities in debate, forensics, oral interpretation, creative drama and public relations. Students on the debate and forensics teams travel regularly, and are ranked among the best in national competition. The creative drama students bring their talents to schools throughout Southern Illinois.

The Communication Arts and Studies specialization provides students with strong basic communication skills, and the opportunity to structure much of their majors to their own tastes. Enough open electives remain for students who wish a second major.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	3	-
*GE-C 200	Oral Interpretation of Literature	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>1</sup>	-	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
GE-E	Human Health and Well Being - Activity	-	2
Electives		3	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	3	-
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being(select) <sup>1</sup>	-	2
*SPCH 221	Advanced Public Speaking	3	-
*SPCH 230	Introduction to Communication Theory	3	-
*SPCH 262	Interpersonal Communication II	-	3
Electives		3	4
		<u>15</u>	<u>15</u>

\*Departmental requirements.

<sup>1</sup>Refer to section General Education for the Transfer Student.

Secondary students and community college students are encouraged to take part in as much speech activity work as possible prior to entering SIU. Those who are interested in specializing in oral interpretation should also take as many literature courses as possible. Those students interested in other aspects of oral communication should take elective work in high school or at the community college in the social science areas.

### Speech Communication As A Major

No minor required; no foreign language required.

The Speech Communication Department uses direct advisement of all new, transfer, and continuing students.

Graduate degrees (M.A., M.S., and Ph.D.) are available in Speech Communication. Students choose electives to build desired specialization.

Representative First Job Titles: Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

SPEECH COMMUNICATION  
(Communication Education)  
College of Communications and Fine Arts  
College of Education  
(Bachelor of Science)

Doron Claiborne, Advisement  
Telephone - 618-453-2291  
Communications Building, Room 2002

M. Frances Giles, Coordinator  
Teacher Education Services  
Telephone - 618-453-2354  
Wham Building, Room 135

Many careers demand the ability to communicate well. The Department of Speech Communication, with 16 professors, many having national and international scholarly reputations, teaches a wide range of courses in the history, theory and successful use of communication. The Department also sponsors co-curricular activities in debate, forensics, oral interpretation, creative drama and public relations. Students on the debate and forensics teams travel regularly, and are ranked among the best in national competition. The creative drama students bring their talents to schools throughout Southern Illinois.

The Communication Education specialization meets the Illinois requirements for teaching certification in speech at the secondary level. Students have the opportunity to take a minor, thus gaining a second teaching area.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B 202	Introduction to Psychology	3	-
GE-B 212 or 301	Introduction to American Government and Politics or U.S. History	-	3
*GE-C 203	Introduction to Theater	3	-
*GE-C 200	Oral Interpretation of Literature	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1</sup>	-	2
*GE-D 153	Public Speaking	-	3
GE-E	Human Health and Well Being--Activity	1	2
GE-E 201	Healthful Living	2	-
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Studies (select) <sup>1</sup>	-	3
GE-C	English in Humanities (select) <sup>1</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
*SPCH 221	Advanced Public Speaking	3	-
*SPCH 230	Introduction to Communication	3	-
*SPCH 261	Small Group Communication	-	3
*SPCH 262	Interpersonal Communication II	-	3
Electives		<u>3</u>	<u>3</u>
		15	15

\*Departmental requirements.

<sup>1</sup> Refer to section General Education for the Transfer Student.

College of Education requires for certification: GE-B 202; GE-B 212 or 301; GE-D 101; GE-D 117, 118 or 119; GE-D 153; GE-E 100-114 (2 hours), GE-E 201; and one additional English course from GE-C, GE-D or department.

#### Speech Communication As A Major

A student interested in the major should be aware of the requirements for entrance into the Teacher Education Program. The Speech Communication Department uses direct advisement of all new, transfer, and continuing students.



## SPEECH COMMUNICATION

(Oral Interpretation)  
College of Communications and  
Fine Arts  
(Bachelor of Science)

Doron Claiborne, Advisement  
Telephone - 618-453-2291  
Communications Bldg, Rm 2002

Many careers demand the ability to communicate well. The Department of Speech Communication, with 16 professors, many having national and international scholarly reputations, teaches a wide range of courses in the history, theory and successful use of communication. The Department also sponsors co-curricular activities in debate, forensics, oral interpretation, creative drama and public relations. Students on the debate and forensics teams travel regularly, and are ranked among the best in national competition. The creative drama students bring their talents to schools throughout Southern Illinois.

Oral Interpretation majors often pursue careers in theater, radio and television, and publishing. The Calipre Stage, which has regular productions and reading hours, provides a place for students and faculty to perform.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Studies (select) <sup>1</sup>	-	3
*GE-B 202	Introduction to Psychology	3	-
GE-C	Humanities (select) <sup>1</sup>	3	-
*GE-C 200	Oral Interpretation of Literature	-	3
GE-D 101	English Composition	3	-
GE-D 117, 118 or 119	Writing (select) <sup>1</sup>	-	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	-	3
*GE-E 103d	Dance (Beginning Contemporary)	2	-
Electives		3	3
		<u>17</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Studies (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 107	Intermediate Algebra	-	3
GE-E	Human Health and Well Being - Activity	-	2
*SPCH 221 or 261	Advanced Public Speaking or Small Group Communication	3	-
*SPCH 262	Interpersonal Communication II	3	-
*THEA 303	Voice and Diction	2	-
*THEA 207	Fundamentals of Theatrical Design	-	2
*ENG LIT	Recommended by Department	-	3
Electives		3	3
		<u>17</u>	<u>16</u>

\*Departmental requirements.

<sup>1</sup> Refer to section General Education for the Transfer Student.

Secondary students and community college students are encouraged to take part in as much activity work as possible prior to entering SIU. Those who are interested in specializing in oral interpretation should also take as many literature courses as possible. Those students interested in other aspects of oral communication should take elective work in high school or at the community college in the social science areas.

### Oral Interpretation (Speech) As A Major

No minor required; no foreign language required. The Speech Communication Department uses direct advisement of all new, transfer, and continuing students.

Graduate degrees are available in Speech Communication. Students choose electives to build desired specialization.

Representative First Job Titles: Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.

## SPEECH COMMUNICATION

(Public Relations)  
College of Communications and  
Fine Arts  
(Bachelor of Science)

Doron Claiborne, Advisement  
Telephone - 618-453-2291  
Communications Bldg., Room 2002

Many careers demand the ability to communicate well. The Department of Speech Communication, with 16 professors, many having national and international scholarly reputations, teaches a wide range of courses in the history, theory and successful use of communication. The Department also sponsors co-curricular activities in debate, forensics, oral interpretation, creative drama and public relations. Students on the debate and forensics teams travel regularly, and are ranked among the best in national competition. The creative drama students bring their talents to schools throughout Southern Illinois.

Public Relations students are prepared to accept positions in such areas as public relations, advertising, marketing, government relations and sales. The Pyramid Public Relations Agency, run by students in the program under faculty supervision, gives students practical experience in applying what they have learned. The Department also encourages internships and practicums.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
*GE-B 202	Introduction to Psychology	3	-
GE-B 212	Intro. to American Gov't & Politics	-	3
GE-C	Humanities (select) <sup>1</sup>	3	3
GE-D 101	English Composition	3	-
GE-D 117, 118			
or 119	Writing (select) <sup>1</sup>	-	2
*GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-E	Human Health and Well Being - Activity	-	2
*SPCH 281	Introduction to Public Relations	-	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 107	Intermediate Algebra	3	-
GE-E 201	Human Health and Well Being - Activity	2	-
ECON 214	Macroeconomics	-	3
*JRNL 300	Mass Media in Modern Society	-	3
*JRNL 310	Writing for the Mass Media	-	3
*R&T 200	Understanding Radio and Television	-	3
SPCH 261	Small Group Communication	-	-
SPCH 280	Business & Professional Communication	3	-
*SPCH 326	Persuasion	3	-
		<u>14</u>	<u>15</u>

\*Departmental requirements.

<sup>1</sup>Refer to section General Education for the Transfer Student.

NOTE: Students must demonstrate proficiency in typing at least 30 words per minute.

### Public Relations (Speech Communication) As A Major

The public relations specialization is an interdisciplinary program with a focus on communication studies designed with the assistance of and approved by the Public Relations Society of America. The Speech Communication Department uses direct advisement of all new, transfer, and continuing students.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on and off campus public relations projects and association with professional practitioners.

Representative First Job Titles: Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer, Account Executive, and Legislative Assistant.

Many careers demand the ability to communicate well. The Department of Speech Communication, with 16 professors, many having national and international scholarly reputations, teaches a wide range of courses in the history, theory and successful use of communication. The Department also sponsors co-curricular activities in debate, forensics, oral interpretation, creative drama and public relations. Students on the debate and forensics teams travel regularly, and are ranked among the best in national competition. The creative drama students bring their talents to schools throughout Southern Illinois.

Students who desire a B.A. instead of a B.S. degree take the same speech communication courses as students in the Communication Arts and Studies specialization, as well as the supplemental requirements of the College of Liberal Arts.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	-
GE-B	Social Science (select) <sup>1</sup>	3	3
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-D 101 & 117, 118 or 119	English Composition and Writing (select) <sup>1</sup>	3	2
GE-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
GE-D	Math (select) <sup>1</sup>	-	3-4
GE-E	Human Health and Well Being (select) <sup>1</sup>	2	2
Elective <sup>2</sup>		2	-
		<u>16</u>	<u>13-14</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	3	3
GE-B	Social Science (select) <sup>1</sup>	-	3
GE-C 200	Oral Interpretation of Literature	3	-
FL	Foreign Language <sup>4</sup>	4	4
SP 22I	Advanced Public Speaking <sup>3</sup>	3	-
SP 26I	Small Group Communication	-	3
MATH or CS	Math or Computer Science <sup>5</sup>	3	-
Elective <sup>2</sup>		-	3
		<u>16</u>	<u>16</u>

\*This is not a professional concentration, but a liberal arts concentration. See also the programs under the College of Communications and Fine Arts and the College of Education.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Elective hours should be used to explore areas of interest and to enhance career opportunities; or courses may be selected to satisfy Liberal Arts requirements (see College of Liberal Arts section).

<sup>3</sup>Required by the major.

<sup>4</sup>Two semesters (which is generally eight hours) of a foreign language are required for all Liberal Arts students who entered college anywhere Fall 1978 or later. However, four of these hours may be used for GE-C credit.

<sup>5</sup>One of these courses may be used to partially fulfill the Liberal Arts requirement for students beginning college anywhere Fall 1978 or later.

Representative First Job Titles: Technical Writer, Visitors' Guide, Communications Specialist, Advertising Agent, Editor, Public Information Officer, Public Relations Officer, Publications Staff, Personnel Interviewer, Publicity Staff, Newspaper Reporter, Radio Announcer, Speech Writer, Manufacturer's Representative, Salesperson, Newscaster, Television Announcer.



## THEATER

(Acting-Directing)  
(Design-Technical)  
(Playwriting-Dramatic Literature)  
College of Communications and Fine Arts  
(Bachelor of Arts)

David Stevens, Chairperson  
Telephone - 618-453-5741  
Communications Bldg, Room 1033

The Department of Theater blends scholarship and practice into an academically based theater experience preparing the student for a career in professional, educational or community theater, as well as establishing a solid academic foundation for many complementary fields. The extensive production schedule in two theaters--a proscenium house, the McLeod Theater, seating 580 and a flexible Laboratory Theater seating about 100--provides training in all aspects of theater, augmented by courses in acting, voice, movement, directing, playwriting, design and technical theater. Courses in theater history, dramatic theory and criticism and specialized courses, e.g., children's theater and theater management, complement the program. The production schedule is extensive enough to allow students the opportunity to design sets, lights, costumes, and to write, act and direct for these productions. Seminars in international and ethnic theater and drama coordinated with ongoing research projects and visits of artists-in-residence enhance the total experience.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	-
GE-C	Humanities (select) <sup>1</sup>	-	3
GE-C 103	Introduction to Theater	3	-
GE-D 101	English Composition	3	-
GE-D 153 or 152	Public Speaking or Interpersonal Communication	3	-
GE-D 107	Intermediate Algebra	-	3
GE-D 117, 118 or 119	Expository, Technical or Creative Writing	-	2
GE-E	Human Health and Well Being (select) <sup>1</sup>	-	2
*THEA 217 or 218	Acting <sup>3</sup> or Beginning Stagecraft <sup>4</sup>	3	3
		<u>15</u>	<u>16</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-A	Science (select) <sup>1</sup>	-	3
GE-B	Social Studies (select) <sup>1</sup>	3	3
GE-C	Humanities (select)	-	3
GE-E	Human Health and Well Being	2	-
*THEA 218b,c	Beginning Stagecraft <sup>4</sup>	3	3
*THEA 203a,b	Voice and Diction or		
or 213a,b	Stage Movement <sup>3</sup>	3	3
*THEA 300	Production	3	-
Electives <sup>2</sup>		3	5
		<u>17</u>	<u>17</u>

\*Theater core requirement.

<sup>1</sup>To determine what courses may be taken to satisfy the general education requirements for this program, please refer to the section, General Education for the Transfer Student.

<sup>2</sup>Students should consult with the department regarding the selection of courses to fulfill this requirement.

<sup>3</sup>For students who plan to fulfill the Acting-Directing specialization.

<sup>4</sup>For students who plan to fulfill the Design-Technical specialization.

### Theater As A Major

No minor is required. The Department of Theater also offers the M.F.A. degree with specializations in acting, acting-directing, design, and playwriting. Doctoral studies in theater are sponsored by the Department of Communication.

During the academic year, four productions (two plays, one opera, and one musical) are performed in the McLeod Theater and numerous original one-act plays and other shows are produced in the Laboratory Theater.

Each summer, a resident stock company produces two plays and two musicals in the McLeod Theater and members of the Playwrights' Workshop produces four original plays in the Laboratory Theater.

The heavy production schedule provides many opportunities for practical experience in all aspects of theater.

Scholarships are available.

Representative First Job Titles: Costume Designer, Sound Effect Technician, Theater Drafting Technician, Sales (Magazine), Lighting Effect Technician, Scenery Specialist, Costume Specialist, Performing Artist, Choreographer (Dance Composer), Understudies Artist, Cosmetic Specialist, Actor/Actress, Publicist, Theater Instructor, Travel Coordinator, Costume Designer, Playwright, Music Score Specialist.

TOOL AND MANUFACTURING TECHNOLOGY

(Metal Fabrication and Processes)

School of Technical Careers

(Associate in Applied Science)

H. R. Soderstrom

Program Coordinator

Telephone 618-985-4110

STC Carterville Campus

The metal fabrication and processes specialization provides training in machine shop, welding and fabrication. Students in this specialization will learn to operate such machine tools as lathes, milling machines, grinders and drill presses. They will develop proficiency in a variety of welding skills and learn to use oxy-acetylene, electric arc, metallic inert gas and tungsten-inert gas welding machines.

Graduates of the program may choose to work as a tool and manufacturing technician. They will have the technical background required to work with engineers in research, development and testing. In addition, they will be skilled in metal cutting and fabrication.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-D 101	English Composition	-	3
STC 105a,b	Technical Mathematics	-	4
TT 101	Basic Tool and Manufacturing Lab	7	-
TT 102	Milling Machine and Grinding Lab	-	7
TT 125	Introduction to Machine Tools	3	-
TT 126	Machinability of Metals, Milling and Abrasive Machining	-	3
TT 128	Hydraulic and Pneumatic Controls	2	-
TT 180, 181	Welding I and II	3	3
TT 185	Technical Drawing I	4	-
		<u>19</u>	<u>20</u>
<u>Second Year</u>			
GE-B	Social Science elective	-	3
GE-D	Communication Elective	-	2
STC 107a,b	Applied Physics	4	-
TT 182	Welding III	3	-
TT 183	Welding Blueprint Reading	2	-
TT 225	Manufacturing Processes	-	2
TT 275, 276	Ferrous and Tool Steel Metallurgy	2	2
TT 310	Certified Welder Training	6	6
		<u>17</u>	<u>15</u>

Representative First Job Titles: Machinist, Model Maker, Engineering Technician, Prototype Builder, Machine Maintenance Mechanic, Welder, Process Planner.

TOOL AND MANUFACTURING TECHNOLOGY  
(Tool and Manufacturing--Numerical Control)  
School of Technical Careers  
(Associate in Applied Science)

H. R. Soderstrom  
Program Coordinator  
Telephone - 618-985-4110  
STC Carterville Campus

More and more technicians are needed because of the growing array of automated and numerically controlled machines. The tool and manufacturing curriculum is designed specifically to do just this: prepare the student in specific technical areas that are in great need of trained and skilled people. The tool and manufacturing curriculum furnishes technical information in tool making, metallurgy, statics, strength of material, numerical and electric controls, manufacturing processes, process planning, and machinability of metals.

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B	Social Science Elective	-	3
GE-D 101	English Composition	-	3
STC 105a,b	Technical Mathematics	4	-
TT 101	Basic Tool and Manufacturing Lab	7	-
TT 102	Milling Machine and Grinding Lab	-	7
TT 125	Introduction to Machine Tools	3	-
TT 126	Machinability of Metals, Milling, and Abrasive Machining	-	3
TT 128	Hydraulic and Pneumatic Control	2	-
TT 185, 186	Technical Drawing I & II	4	4
		<u>20</u>	<u>20</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
TT 208	Numerical Control Programming	4	-
GE-D	Communication Elective	-	2
STC 107a,b	Applied Physics	4	-
TT 210	Numerical Control, Electrical Discharge Machining, and Tool and Die	7	-
TT 211	Advanced Numerical Control, Tool and Die, and Production Machining	-	7
TT 220	Numerical Control, Inspection Practices, and Electrical Discharge	3	-
TT 221	Tool and Die, Production Machining, & Process Planning	-	3
TT 275	Ferrous Metallurgy	2	-
TT 276	Tool Steel Metallurgy	-	2
TT 225	Manufacturing Processes	-	2
		<u>20</u>	<u>16</u>

Tool And Manufacturing Technology As A Major

This program provides knowledge and abilities for industries requiring engineering technicians. Graduates accept jobs as part programmers of numerical control machines, laboratory technicians, planners, methods and quality control technicians, expeditors, tool and die technicians, tool room technicians, and tool room supervisors.

Emphasis is on modern machine tools and accessories, numerical control machines, production set-ups and tooling, jigs and fixtures, dies, and methods for efficient and economical production and manufacture of industrial products and machines.

Also included are courses detailing with the properties and heat treatment of metals, mathematics, technical drawing, technical writing, oral communications, and the human relations aspects of our American industrial life.

The student in this program will have the advantage of courses in data processing that will give him or her the ability to work with computer-assigned programming for numerical controlled machines.

He or she will learn to design and test industrial, electrical, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies.

The graduate will have the technical background to work with engineers in research, development and testing, plus skills in metal cutting that will give him or her the abilities of a tool maker.

Representative First Job Titles: Machinist, Tool & Die Maker, Model Maker, Engineering Technician, Maintenance Worker, Prototype Builder, Inspector, Process Planner.



## UNIVERSITY STUDIES

Undergraduate Academic Services  
(Bachelor of Arts)  
(Bachelor of Science)

University Studies  
Baccalaureate Program  
Undergraduate Academic Services  
Telephone 618-453-5506 or 453-4351  
Woody Hall, C-117

The University Studies Baccalaureate Program is a non-traditional, individualized means of obtaining a degree for students who are interested in designing a multidisciplinary, interdisciplinary, or general program of study.

In University Studies, the student can either pursue a Bachelor of Arts or a Bachelor of Science degree. The Bachelor of Arts requires passing one full year of a foreign language through course work or proficiency exam.

Unlike traditional programs, University Studies does not have an established curriculum. Instead, students use the resources of the entire University. For example: a person interested in arts management may combine courses in the fine arts with others in or related to business, thereby gaining skills enabling him/her to manage a civic center or theater. Or, a person wishing to attend graduate school to become a librarian may combine instructional media and languages courses with courses from a particular field of interest; such a strong curriculum prepares him/her for entrance into a graduate library school. Other students may opt to pursue a broad, general education.

To be admitted to the program, the student must have:

1. At least 24 semester hours passed.
2. No more than 90 semester hours passed.
3. A 2.25 grade point average (on a 4.00 scale) in all college work taken.

A student also cannot exceed the program's prescribed limits on distribution of courses, either at entry or while in the program:

1. No more than 20 semester hours may be taken and passed in any department or school within a college, over and above General Education requirements.
2. No more than 40 semester hours, in addition to General Education requirements, may be taken or passed in any SIU college or major academic unit, or its equivalent in an institution from which the student has transferred. The following is the only exception:
3. In the College of Liberal Arts, as many as 27 semester hours may be taken from the Social Sciences area and 27 semester hours from the Humanities areas.

A general model of a curriculum for a degree in University Studies might be:

1. General Education	45 sem. hrs.
2. Senior level courses (300-400)	40 sem. hrs.
3. Foreign Language	8 sem. hrs. (for the B.A. only)
4. Other courses at any level	<u>27 sem. hrs.</u> (35 for the B.S.)
TOTAL	120 sem. hrs.

After admission to the University as an undecided student or in a major, a student should arrange an interview with the University Studies Advisor to determine eligibility. If criteria are met, the student can then be admitted to the program.

A curriculum developed in zoology provides one with a knowledge of animals, their biology and conservation. The 22 faculty members of the Department of Zoology represent a wide range of these professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois with excellent study facilities in a new \$11 million life science building equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated are the Cooperative Fisheries and Wildlife Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialties. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him or her a specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

<u>First Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 212 or 301	Introduction to American Government or U.S. History <sup>3</sup>	-	3
GE-D 101	English Composition <sup>3</sup>	3	-
GE-D 117, 118, or 119	Writing <sup>3</sup>	-	2
GE-E 201	Healthful Living <sup>3</sup>	-	2
GE-E	P.E. Activity <sup>2,3</sup>	-	-
**CHEM 222a,b	Introduction to Chemical Principles & Lab <sup>1</sup>	4	4
*MATH 111	Pre-Calculus	5	-
ZOOL 220a,b	Diversity of Animal Life	4	4
		<u>17</u>	<u>15</u>
<u>Second Year</u>		<u>Fall</u>	<u>Spring</u>
GE-B 202	Introduction to Psychology <sup>3</sup>	3	-
GE-B	Social Studies (select) <sup>2</sup>	-	3
GE-C	English Elective in Humanities (select) <sup>2,3</sup>	3	-
GE-C	Humanities (select) <sup>2</sup>	3	3
GE-D 153	Public Speaking <sup>3</sup>	-	2
GE-E	P.E. Activity <sup>3</sup>	-	1
**BOT 200	General Botany	-	4
**BIOL 307	Environmental Biology	3	-
ZOOL 300	Vertebrate Embryology	4	-
ZOOL or	Botany Electives	-	4
		<u>16</u>	<u>17</u>

\*Approved substitute for GE-D Math.

\*\*Approved substitutes for GE-A.

<sup>1</sup>Should also have a minor in Botany. See also the program under the College of Science.

<sup>2</sup>Refer to the section General Education for the Transfer Student.

<sup>3</sup>The following are required courses for certification: GE-B 202, Introduction to Psychology; GE-B 212, Introduction to American Government and Politics OR GE-B 301, History of the United States; GE-D 101, English Composition; GE-D 117, 118, 119, Expository, Technical, or Creative Writing; GE-D 153, Public Speaking; GE-E 100-114 (2 hours), Physical Education Activities; GE-E 201, Healthful Living; One additional English course (GE-C, GE-D, or departmental); Math 111 or Pre-Calculus or 108, 109 College Algebra and Trigonometry.

#### Zoology As A Major

Students pursuing a Bachelor of Science in Education are not required to complete a foreign language.

Refer to the Undergraduate Catalog for specific major requirements.

ZOOLOGY  
College of Science  
Bachelor of Arts)  
Bachelor of Science)

Dr. DuWayne C. Englert  
Dir. of Undergraduate Studies  
Telephone - 618-536-2314  
Life Science II, 351 or 355F

The zoology curriculum provides the student with a knowledge of animals, their biology and their conservation. The 25 faculty members of the Department of Zoology represent a wide range of professional zoological disciplines. A wide variety of courses is offered in the biologically rich and diverse environment of Southern Illinois. Our excellent study facilities in the life science building are equipped with specialized laboratories, computer facilities, research museum, and animal quarters. Associated with the department are the Cooperative Fisheries and Wildlife Research Laboratories which make important contributions to the education of many undergraduates.

The department's faculty and graduate students provide personal opportunities for student introduction to interesting specialties. This is augmented by the unique INDIVIDUALIZED CURRICULUM prepared for each student majoring in zoology. Arrangements are made through the Director of Undergraduate Studies for each student to select a faculty advisor to plan with him or her the specific program of courses in zoology and supporting areas (usually other biological sciences, math and chemistry).

First Year		Fall	Spring
E-A 118	Introductory Zoology <sup>2</sup>	4	-
E-B	Social Studies (select)	3	-
E-C	Humanities (select)	-	3
E-D 101	English Composition	3	-
E-D 117, 118 or 119	Writing (select)	-	2
Elective or			
CHEM 115	Introductory General Chemistry <sup>1,2,4</sup>	3	-
CHEM 222a	Introduction to Chemical Principles <sup>1,2,4</sup>	-	4
MATH 108, 109	College Algebra and Trigonometry <sup>1,2,3</sup>	3	3
ZOO 220a	Diversity of Animal Life (invertebrate) <sup>2</sup>	-	4
		16	16
Second Year		Fall	Spring
E-B	Social Studies (select)	-	3
E-C	Humanities (select)	2	-
E-D 152 or 153	Interpersonal Communication or Public Speaking	3	-
E-E	Human Health and Well Being (select)	-	1
ZIO 307	Environmental Biology <sup>1,2</sup>	-	3
CHEM 222b	Introduction to Chemical Principles <sup>2,4</sup>	4	-
L	Foreign Language <sup>1,2</sup>	4	4
MATH 140 or 150	Calculus <sup>5</sup>	-	4
ZOO 220b	Diversity of Animal Life (vertebrate)	4	-
		17	15

Approved substitutes for General Education.

The College of Science requires one year of any foreign language, one year of math, 6 semester hours of physical sciences, and 6 semester hours of biological sciences.

GE-D 107 or 1½ years of high school algebra is a prerequisite to Math 108 and 111.

CHEM 115 is for students who have less than one year of high school chemistry. CHEM 222a,b will satisfy Zoology Department requirements for inorganic chemistry. For some students, CHEM 140a,b will be adequate.

Computer Science 202-3, Math 282-3 or Educational Psychology 402-3 will also satisfy this requirement.

#### Zoology As A Major

Students majoring in zoology should consult with the Director of Undergraduate Studies in Zoology as soon as possible and arrange to develop an individualized curriculum under the supervision of a faculty advisor.

A major in zoology is an appropriate beginning for anyone planning to specialize in teaching or research in the biological sciences and allied fields such as conservation, environmental protection, fisheries or wildlife management, dentistry, medicine, or veterinary medicine. Most positions are available in schools, local, state, and federal government agencies, museums, hospitals, and chemical, instrument, food and drug industries.

Graduate degree programs leading to M.A., M.S., and Ph.D. are available.

Representative First Job Titles: Zoologist, Animal Breeding Technician, Animal Ecologist, Animal Husbandry Supervisor, Animal Taxonomist, Biological Warfare Technician, Genetics Technician, Medical Laboratory Assistant, Quality Control Laboratory Technician, Technical Library Operator, Entomologist, Physiologist, Wildlife Lab Assistant, Wildlife Refuge Manager, Parasitologist, Zoological Park Keeper, Mammalogist, Research Technician, Researcher, Reclamation Technician, Teacher, Technical Sales Representative.



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## VISITS TO CAMPUS

We welcome prospective students, their families, friends, and counselors to learn more about SIU through various on-campus and off-campus events. Activities on campus include Campus Visits, Group Visit Days, and Open Houses. SIU Previews are held in several off-campus locations around Illinois each year.

Campus Visits are available by appointment Monday through Friday, 8:00 a.m. to 4:30 p.m.; to make best use of the visit, please plan to arrive by 2:00 p.m. Please make reservations approximately seven days in advance. Admissions Counselors are available to advise you about academic programs, student services, admission policies and procedures, housing options, financial aid and general information about the University and community. Guided tours of the campus are available. Appointments with departmental representatives can be arranged with advance notice.

Group Visit Days are, quite simply, Campus Visits by groups of people. The same arrangements are available, but an advance reservation is a must.

Open Houses are held on campus 4-5 times per year. Activities include admissions counseling, departmental exhibits, displays by student organizations, presentations on financial aid and other student services, campus and departmental tours, and opportunities to enjoy other events or activities.

SIU Previews are events held in locations from October through May to bring SIU within easy traveling distance of nearly every Illinois community. Activities include admissions counseling, small group and individual sessions on financial aid, a dynamic audio-visual presentation entitled "SIU Today," consultation about University housing, and information displays on many other programs and services.

For reservations for Campus Visits and Group Visit Days or for information about any of these events, please write New Student Admission Services, Southern Illinois University, Carbondale, Illinois, 62901 or call 800-642-3531 (toll free in Illinois or 618-536-4405 (direct)).

## PUBLICATIONS

### PUBLICATIONS FOR COUNSELORS

#### Counselor's Advisement Catalog

Every counselor and academic advisor should have a personal copy. Write New Student Admission Services.

#### Undergraduate Catalog

Copies are distributed free to educational institutions and counselors--use school stationery. Graduate Catalog, School of Law Catalog, Schedule of Classes (specify semester) are also available by writing University Publications.

#### School/College News

Published as needed to immediately inform counselors, student personnel services, staff, etc., of items of interest, status of programs, changes in academic or unit requirements.

### PUBLICATIONS FOR STUDENTS

#### General Information Catalog

This pictorial and factual booklet contains information and guidelines for the prospective student as well as applications for admission and housing. It is distributed at college days, night programs, and in correspondence. Quantities will be sent on request. Write New Student Admission Services.

#### New Student Newsletter

Published as needed to inform students and their families about items of interest, status of programs, changes in procedures, etc.

### PUBLICATIONS FOR PARENTS

#### Parents Newsletter

Published as needed to inform parents of prospective students about items of special interest, financial aid, student services, payment schedules, etc.

### OTHER MATERIALS AND OFFICES

Admission Applications--New Student Admission Services

Testing Information (ACT, CLEP)--Testing Office, Career Planning and Placement Center

Financial Aid Applications--Office of Student Work and Financial Assistance

University Housing Information--Housing Business Services, Washington Square, Building D

Off-Campus (Private) Housing Information--Housing Information Center, Washington Square, Building C







VOLUME 28, NUMBER 2,  
GENERAL INFORMATION FOR UNDERGRADUATES,  
IS SHELVED IN ARCHIVES,  
AND MAY BE SEEN UPON REQUEST.

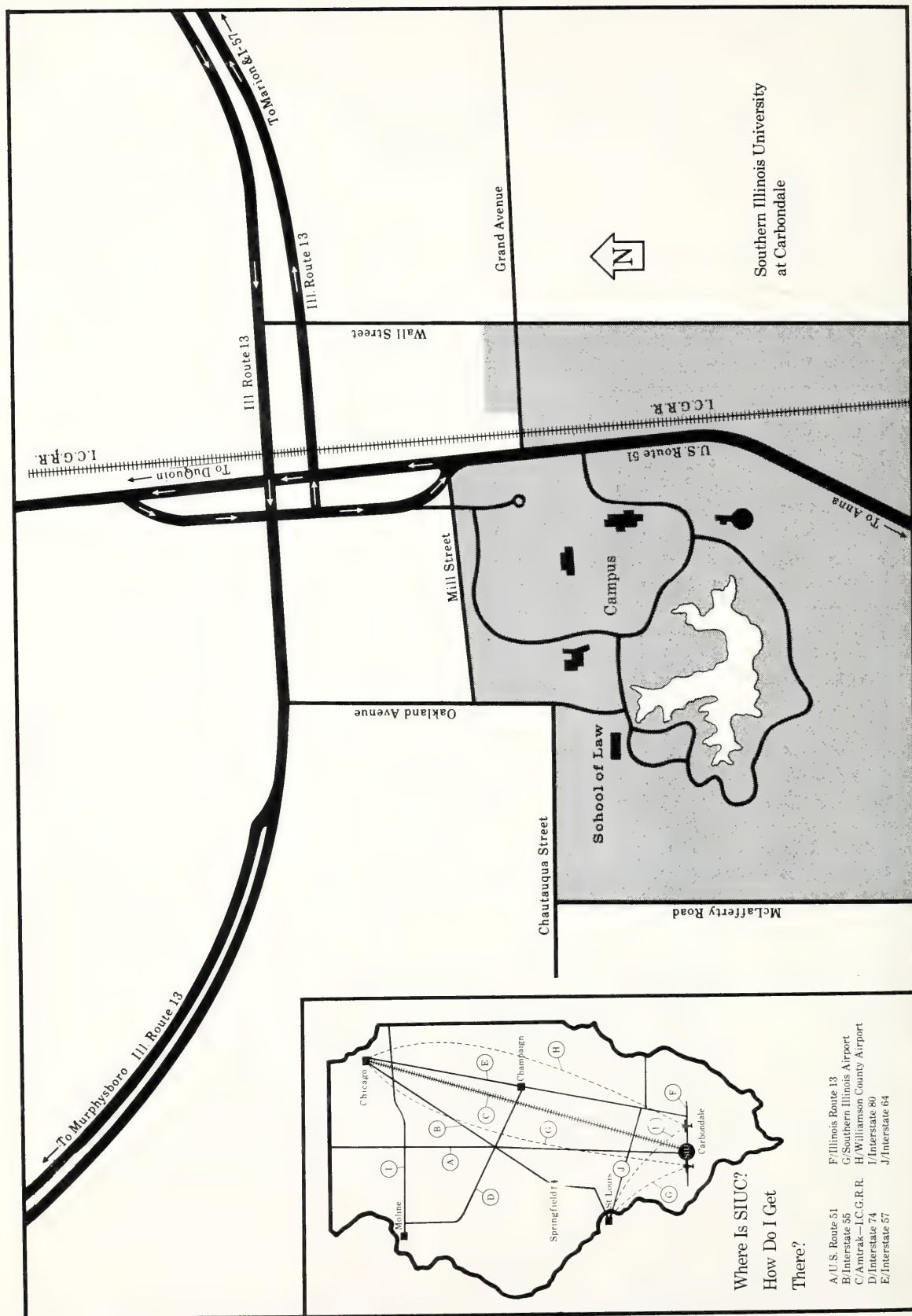




# Bulletin



1986-87  
School of Law  
Catalog



Southern Illinois University  
at Carbondale



Where Is SIUC?  
How Do I Get  
There?

- A/U.S. Route 51
- B/Interstate 55
- C/Amtrak—LCGRR
- D/Interstate 74
- E/Interstate 57
- F/Illinois Route 13
- G/Southern Illinois Airport
- H/Williamson County Airport
- I/Interstate 80
- J/Interstate 64



Southern  
Illinois  
University  
at Carbondale

## Bulletin

1986-87  
School of Law  
Catalog

**Southern Illinois University  
at Carbondale Bulletin (USPS 506-080)**

Volume 28, Number 3, August 1986

Second-class postage paid at Carbondale, Illinois 62901. Published by Southern Illinois University at Carbondale, Carbondale, Illinois 62901, four times per year, in June, July, August, and October. POSTMASTER: Send address changes to Academic Publications c/o University Publications, Southern Illinois University at Carbondale, Carbondale, IL 62901.



# This Issue

The School of Law Catalog covers in detail questions concerning the School of Law program at Southern Illinois University. (It supersedes Vol. 27, No. 4, of the *Southern Illinois University at Carbondale Bulletin*.) All statements in this catalog are announcements of present policies and are subject to change at any time without prior notice. They are not to be regarded as offers to contract.

The following publications may be obtained free from University Publications, Southern Illinois University, Carbondale, Illinois 62901.

- Graduate Catalog
- Undergraduate Catalog
- School of Law Catalog
- Schedule of Classes (fall, spring, or summer)

Southern Illinois University is an Equal Opportunity Affirmative Action institution in accordance with civil rights legislation and does not discriminate on the basis of race, religion, national origin, sex, age, handicap, or other factors prohibited by law in any of its educational programs, activities, admission, or employment practices. Concerns regarding this policy should be referred to the Affirmative Action Office, Southern Illinois University, Anthony Hall, Room 104, telephone 618-536-6618.

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# Board of Trustees and Officers of Administration

## Board of Trustees of Southern Illinois University

*Term Expires*

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 C. Peter Goplerud, *Associate Dean*, School of Law  
 Scott Nichols, *Assistant Dean, Director of Admissions*, School of Law



# School of Law Calendar

## **Fall Semester, 1986**

Orientation  
Semester classes begin  
Labor Day holiday  
Thanksgiving vacation

Last day of classes  
Final examinations

Friday, August 22-Sunday, August 24  
Monday, August 25  
Monday, September 1  
Saturday, November 22-Sunday,  
November 30  
Monday, December 8  
Wednesday, December 10-Saturday,  
December 20

## **Spring Semester, 1987**

Semester classes begin  
Martin Luther King Jr.'s  
birthday holiday  
Presidents' Day holiday  
Spring vacation  
Last day of classes  
Final examinations  
Commencement

Wednesday, January 14  
  
Monday, January 19  
Monday, February 16  
Saturday, March 14-Sunday, March 22  
Friday, May 1  
Monday, May 4-Friday, May 15  
Sunday, May 17

## **Summer Session, 1987**

Classes begin  
Independence Day holiday  
Last day of classes  
Final examinations  
Commencement

Monday, June 15  
Friday, July 3  
Monday, August 3  
Wednesday, August 5-Friday, August 7  
Saturday, August 8

## **A Welcome From the Dean**

As you enter the front door of the Southern Illinois University law school, there is a quotation carved on a marble slab, "Justice is a human enterprise." At Southern Illinois we try our best to keep the study of law both a human and a humane enterprise. About this time last year, I accepted the invitation of Southern Illinois University to become dean of the School of Law. The things I found most attractive about the place are those which I think you will enjoy the most.

Ours is a friendly law school with a strong opportunity for individual achievement. We have one of the two or three best faculty-student ratios of any law school in the country. This means that the law school has an extremely personal feel to it. As you may know, all of our law students are issued a key to the building which means that you can come and go from the building, and more particularly from the library, at any time during the day or night. Furthermore, the small size of the class (we seek to admit one hundred in each of our entering classes), means that you will have your first year classes with a group of approximately 50 other students and that your writing section will be in a group of 15 or 20 students. We have a Distinguished Speakers Program which will interest you, and the school is planning new programs to be offered in cooperation with the university's School of Medicine.

We take great pride in the success of our graduates. We have one of the best bar passage rates in the nation. The placement of our law graduates in firms and with governmental agencies is particularly fine. I know you will be extremely pleased with the many opportunities which the study of law will open for you.

We hope that you will join us at Southern Illinois University's law school. I believe you would find our law school a healthy environment in which to tackle the challenge of legal education. I know you will find law school a rewarding experience.

A handwritten signature in dark ink, reading "Rennard Strickland". The signature is fluid and cursive, with the first name "Rennard" starting with a large, looping 'R' and the last name "Strickland" following in a similar style.

Rennard Strickland  
Dean and Professor

# University General Information

## History

The Southern Illinois University System is a senior public university system comprising two diverse institutions—Southern Illinois University and Southern Illinois University at Edwardsville—and serving approximately 33,000 students.

Chartered in 1869, Southern Illinois Normal University served as a teacher-training institution until 1943, when the school was transformed into a university, giving official recognition to the area's demand for diversified training and service. SINU became Southern Illinois University in 1947, and in 1949 began offering off-campus academic courses in the Metropolitan East St. Louis area, an initiative which led to the eventual development of a separate, distinctive institution in Edwardsville.

The mission and scope of the Southern Illinois University System are highly complex and emphasize a commitment to fine quality in education. As the Southern Illinois University System has grown and flourished, its constituent universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region but from throughout the state of Illinois, the nation, and from overseas as well.

The universities within the Southern Illinois University System offer a broad range of academic programs at the associate, baccalaureate, master's, doctoral, and professional levels. In addition to the many undergraduate degree programs offered, the system supports more than sixty academic programs which lead to the master's degree and twenty-two which lead to the doctorate. The professional schools are designed to provide first-rank health and legal graduates trained to meet the particular needs of the people of Illinois. Southern Illinois University operates a School of Law in Carbondale and a School of Medicine headquartered in Springfield, the first year of which is offered in Carbondale; Southern Illinois University at Edwardsville operates a school of nursing in Edwardsville and a School of Dental Medicine in Alton. More than 6,000 of the 33,000 students currently enrolled are in graduate and professional programs.

The instructional, research, and service missions of the two universities reflect the needs of the geographic areas in which they are located. The system is also committed to serving state, national, and international needs, a commitment reflected in educational activities located away from the main campuses in communities throughout the state and nation. Countries throughout the world experience this commitment through research and training exchanges and student exchange programs.

The Southern Illinois University System is governed by a nine-member board of trustees, which sets policy that enables the institutions to carry out



established objectives. The chancellor of the Southern Illinois University System is the chief executive officer of the system and is the primary link between the universities and the Board of Trustees. The university presidents report directly to the chancellor and are responsible for the internal operations of their institutions.

**Location**

The city of Carbondale is approximately 100 miles southeast of Saint Louis, Missouri, in Jackson County, the western border of which is the Mississippi River. Some of the most rugged and picturesque terrain in Illinois lies south of Carbondale. Sixty miles to the south is the historic confluence of the Ohio and Mississippi rivers; the two rivers form the border of the southern tip of Little Egypt, the name given to the 14 southernmost counties in Illinois. The region immediately surrounding Carbondale is noted for its large peach and apple orchards. Two state parks and four lakes are located within 10 miles of the campus and much of the area is a part of the Shawnee National Forest.

**Campus**

The University campus, comprising more than 3,290 acres immediately south of the city of Carbondale, includes a 981-acre developed portion with woods and a lake as a site for academic buildings and residence halls. The buildings are located in wooded tracts along two circular shaped campus drives, named for Lincoln and Douglas. Two beautiful features, located near the center of the campus, are a wooded tract preserved in the tradition of native forests of Southern Illinois and several buildings which formed the original campus a century ago.

# 1

# School of Law

## History

The School of Law at Southern Illinois University, Carbondale, Illinois, began instruction in law in the fall of 1973. Hiram H. Lesar, for whom the law building is named, was the founding dean and served until 1980. Dan Hopson served as dean until his death in 1985, at which time Rennard J. Strickland was appointed. The first class graduated in 1976, and there are still fewer than 1,000 alumni.

The school is fully accredited by the American Bar Association and is a member of the Association of American Law Schools.

Twenty-three full-time faculty members are involved in research and publication in addition to their teaching duties. A dynamic, personalized educational environment is the result of a student body of 300 and a faculty/student ratio of 1/13. The group is small enough so that faculty and students can know each other but large enough to justify the variety of courses that should be available in a modern law school. Two visiting professors and six adjunct professors add additional depth to the faculty and curriculum.

## Purposes

The main purpose of the School of Law is to train lawyers who will be competent to practice law now and in the future. In addition to specific legal rules, the student must learn analytic skills, research techniques, and the basic legal principles and policies underlying the current applications of those rules. He or she should also learn the basic skills of advocacy, counseling, and negotiation.

The second purpose of the School of Law stems from recognition of the social fact that lawyers are expected to provide a large part of the leadership in a wide spectrum of American life. In general terms this means that lawyers must perform two functions which go beyond rendering competent legal service. They must be prepared to serve in a "watch-dog" capacity with respect to the proper functioning of American institutions, and they must be prepared to participate in "making law."

The second purpose of the school, then, is to assure that the leadership function performed by lawyers is carried out well. For this purpose the lawyer requires not only the whole range of skills and knowledge needed for the practice of law, but also an understanding of our institutions and a sensitivity to potential conflict areas.

The third purpose of the school—which is essential to the fulfillment of the other two—is to instill in its students a proper conception of the professional



responsibilities of the lawyer and the organized bar, an understanding of the nature and role of the legal profession, and knowledge and appreciation of the ethical principles by which all lawyers are bound.



## Facilities

The Lesar Law Building, dedicated in 1982, is a contemporary structure situated on the western edge of the campus near the lake. The building houses classrooms, student lounges, administrative and faculty offices, and the library, as well as a courtroom and large in-house clinic facilities.



## **Library**

The law library provides all resources needed for research by faculty and students in a superior law school. The new law building includes a 41,000-square-foot library that houses the collection, study spaces, and staff. Services, ranging from expert legal reference to computer-assisted information retrieval, are offered to the law school community.





Law books and law-related information accessible through other media, such as videotapes, audiotapes, microform, or computers, are the core of the law library. The law library holds almost 250,000 volumes—a collection well above the median academic law library size and rich in its variety of titles. This mature library resource includes over 310,000 microform units, the equivalent of close to 100,000 physical books.

Not so easily quantifiable are the library's computer-assisted research systems (LEXIS and Westlaw), and its computer-assisted library technical processes.

Several sophisticated approaches, including a superior card catalog, on-line and conventional indexes, and the interpretive services of law-trained librarians, provide access to the fully-cataloged and classified collection. The library has been a selective federal government depository library since 1978, and an Illinois state depository library since 1982. Government publications are fully integrated into the cataloged collection and available to both the law school community and the public.

The physical features of the law library combine a serene decor with an eminently functional arrangement. Ample seating at both carrels and tables is provided for library users. The library's design includes access and work stations for patrons in wheelchairs. The relationship of library service centers to library users and to the collection is a model for efficient and immediate access to library materials.

The resources of over 1,650,000 volumes in the University library also are readily available to law students, to supplement the strong, well-staffed law school library. A sophisticated interlibrary loan system provides access to materials held in other major research libraries around the country.

## Curriculum

### FIRST YEAR

The first-year curriculum is required. It differs from the usual first-year law school curriculum in that Legal Writing and Reasoning is taught in small sections by full-time faculty members.

#### *First Semester*

<i>Course</i>	<i>Hours</i>
Contracts I	3
Property I	3
Torts I	3
The Legal Profession	3
Legal Research I: Sources and Methodology	1
Legal Writing and Reasoning	2

#### *Second Semester*

<i>Course</i>	<i>Hours</i>
Contracts II	3
Property II	3
Torts II	2
Civil Procedure I	3
Criminal Law	3
Legal Argumentation	2

### SECOND AND THIRD YEARS

The curriculum for the second and third years remains flexible. Constitutional Law, Legal Research II, the Legal Profession, and the Senior Writing Seminar are the currently required courses. Changes may be made in requirements in the future.

The curriculum contains a readily identified emphasis on environmental law which is unique in the state of Illinois. Microcomputers, which are available to students as part of the curriculum and in clinic work, provide valuable training for the practice of law.

A Senior Writing Seminar requires a paper of the quality of a law journal comment. *SIU Law Journal* members are not required to take a seminar, since the law journal work is of equivalent stature.

Up to 6 semester hours of credit for course work taken in the Graduate School may be applied, with permission of the deans of both the Graduate School and the School of Law, toward the number of hours required for the J.D. degree and toward the residence semester requirement. A student must earn a grade of *B* or better in such work for School of Law credit to be given; this letter grade will be reflected on a student's School of Law record, but will not be used to compute the law grade-point average.

The total of course work permitted in each of the areas of clinical law, moot court competition, and law review may not exceed 6 semester hours.

A list of second- and third-year courses normally offered during the academic year follows.

<i>Course</i>	<i>Hours</i>	<i>Course</i>	<i>Hours</i>
Administrative Law	3	Future Interests	3
Admiralty Law	2	Graduate Courses	up to 6
Advanced Civil Procedure	3	Health Policy Law	3
Advanced Moot Court*	1-4	Immigration Law	3
Agency and Partnership	2	Independent Research and Writing	1-3
Agricultural Law	2	Insurance	3
American Indian Law	2	International Law	3
Anglo-American Legal History	3	Jurisprudence	3
Antitrust	3	Juvenile Justice System	2
Bioethics and the Law	3	Labor Law I	2
Civil Procedure II	3	Labor Law II	2
Client Interviewing and Counseling*	3	Land Use Planning	3
Commercial Law I	3	Law and Medicine	3
Commercial Law II	4	Law Journal*	1-6
Conflict of Laws	3	Legal Clinic* (see p. 11)	1-6
Constitutional Law: 14th Amend.**	3	Legal Profession**	2
Constitutional Law: 1st Amendment Rights	3	Legal Research II**	1
Constitutional Law: Governmental Powers	3	Mental Health Law	2
Consumer Protection	3	Mining Law	3
Corporations	3	Oil and Gas Law	3
Creditors' Rights	4	Pre-Trial Advocacy	3
Criminal Procedure: Limits on Investigatory Power	3	Preservation of Environmental Amenities	2
Criminal Procedure: Trial and Pre-Trial Practice	3	Products Liability	3
Delivery of Legal Services	3	Real Estate Finance and Development	3
Economic Regulation of Business	3	Remedies	3
Energy Regulation	3	Securities Regulation	3
Environmental Policy and Pollution Control	3	Special Problems in Taxation	3
Estate and Gift Taxation	3	Sports Law	2
Estate Planning	3	State and Local Government Law	3
Evidence	4	Statutory Interpretation	3
Family Law	3	Transnational Business Transactions	3
Federal Courts	3	Trial Advocacy*	3
Federal Income Taxation	3	Trusts and Estates	4
Federal Income Taxation of Business Enterprises	3	Water Law	3

\*Enrollment Limited

\*\*Required

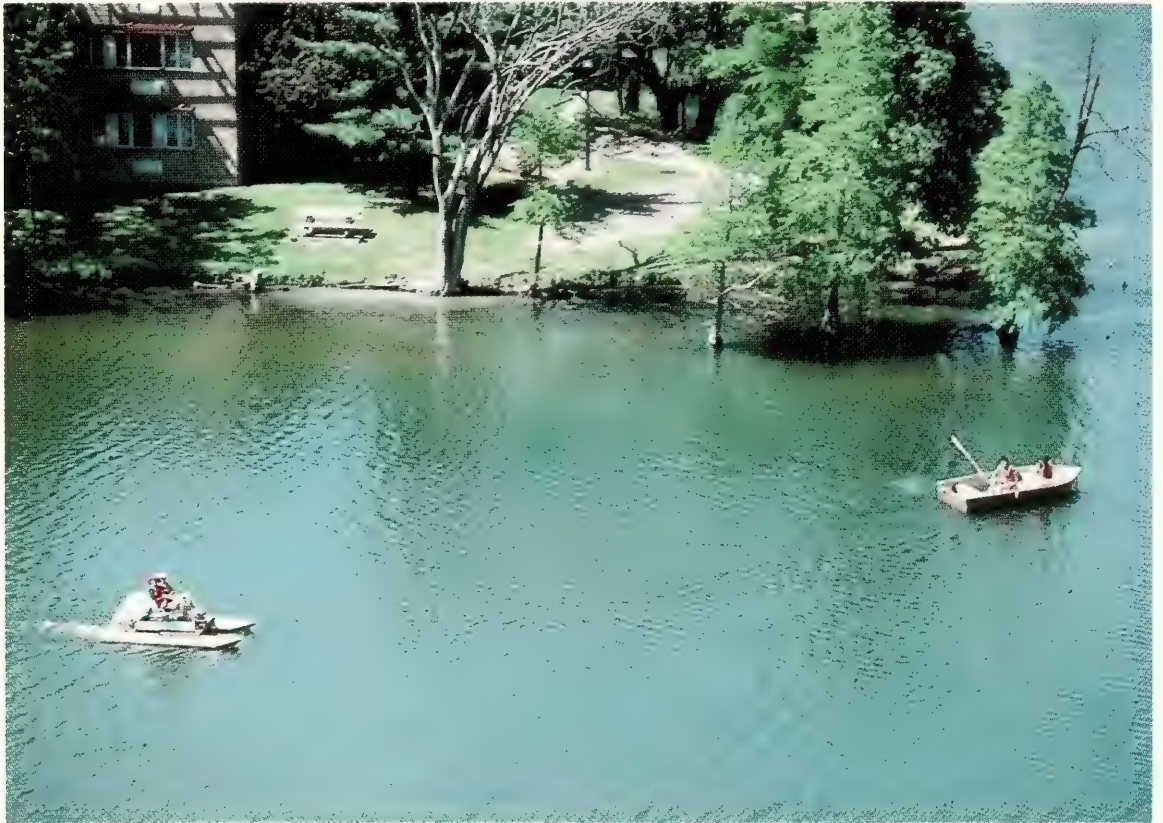


Senior Writing Seminars may include the following:

Business Law	International Treaty Legislation
Civil Rights	Mental Health
Commercial Law	Natural Resources Law
Constitutional Law	Products Liability
Criminal Law	Property
Energy	Sports Law
Housing Discrimination	Tax Policy
International Law	Torts

### Summer School

The law school offers a limited summer school program with courses established each year on an ad hoc basis. New students are not admitted in the summer.



### Admission

To be admitted as a candidate for the Juris Doctor degree, an applicant must present a bachelor's degree and demonstrate capacity for the study of law by a satisfactory undergraduate record and satisfactory performance on the Law School Admission Test (LSAT). Forms for applying for the LSAT and for admission to the law school may be obtained from the Office of Admissions, School of Law, Southern Illinois University, Carbondale, Illinois 62901.

The LSAT is administered on a nationwide basis by the Law School Admission Services, Box 2000, Newtown, PA 18940, and is offered on the SIU campus four times each year. The test administration dates no later than September or December of the applicant's final year of undergraduate study are preferred. LSAT scores which are more than three years old will not be considered by the admissions committee.

Applicants must also register with the Law School Data Assembly Service (LSDAS) by completing the form found in the LSAT bulletin of information and returning it to the Law School Admission Services. Applicants must have transcripts sent to LSDAS by the registrar of each college and professional or graduate school attended. Test scores and evaluations of transcripts are reported to applicants and to the law schools they designate. Applicants should indicate on the LSAT/LSDAS matching forms that their scores and evaluations are to be reported to the Southern Illinois University School of Law. It is not necessary that application for admission to the School of Law be made before taking the test or registering with LSDAS.

Applications for admission to the school may be filed any time after September 1, but applicants are strongly encouraged to file their applications prior to February 1. There is a \$15.00 application fee.

An applicant who is admitted is required to make a nonrefundable tuition deposit of \$100 by April 1, unless accepted later, when several weeks are allowed. This deposit will be credited against the first semester's tuition and fees.

Admissions are made without regard to race, religion, sex, national origin, age, handicap, or other factors prohibited by law. The law school has an active affirmative action program and participates in the Council on Legal Education Opportunity (CLEO) program.

### **Admission of Handicapped Students**

The School of Law maintains a strong commitment to make all services, programs, and activities available to students with disabilities. Our new facility provides access for those in wheelchairs or with limited mobility. Both the campus and the city of Carbondale are accessible to students who use wheelchairs, and to those who are semi-ambulatory, visually handicapped, hearing-impaired, or otherwise disabled. The University Housing Office provides modified housing in the Thompson Point residential area and in the family housing areas.

The law school will gladly help handicapped students make arrangements to meet special needs. Students who seek further information should consult the Admissions Office or the University's Office of Disabled Student Services.

### **Pre-Law Study**

The law school does not require any particular subjects or specific course of study for admission. A broad liberal arts education is better preparation for the study of law than specialized subjects closely related to the law.

As the principal tool of the lawyer is the art of expression, and the importance of the study of English cannot be over-emphasized, the pre-law student should acquire facility in the communication of ideas, both oral and written.

### **Degree Requirements**

A candidate for the Juris Doctor (J.D.) degree must satisfy the entrance requirements, fulfill the residence requirements, and satisfactorily complete a total of 90 semester hours of work for credit, and must pass all required courses. The required courses currently consist of all first year courses, Constitutional Law, Legal Research II, and a Senior Writing Seminar.

#### **RESIDENCE REQUIREMENTS**

A candidate must complete six semesters of residence (the last two must be in this School of Law). In order to obtain residence credit for a semester, a



candidate must complete a minimum of 12 hours of work and must obtain final credit in a minimum of 10 hours of work. A candidate who either examines in or obtains final credit for fewer than the required minimum hours will be given proportionate (12ths) residence credit. No credit toward residence is given in courses in which a student receives a failing grade.

#### LIMITATION OF COURSE HOURS

No student may register for more than 16 hours without the consent of the dean. It is advisable for students to devote most of their time to their work in the school. Students who undertake substantial employment outside the school should reduce their course loads.

#### ATTENDANCE AND WITHDRAWAL

Regular attendance is required of each student. Specific rules regulating attendance and withdrawal are set forth in the law school rules. Copies of the rules are available in the law library.

#### EXAMINATIONS

A student who has not withdrawn, or been withdrawn, from a course is expected to take the examination for that course at the regularly scheduled time. Unexcused failure to take an examination will result in a failing grade. If failure to take an examination is excused, the student may, with the permission of the dean and the instructor, take the examination after the rest of the class or at the time it is next regularly offered. Withdrawal from a non-required course must be made in accordance with University deadlines.

#### POOR SCHOLARSHIP RULE

Grades are given in numbers on a scale of 0.0 to 4.0, with 2.0 being the average required for graduation. A student who fails to have a cumulative average of 1.9 at the end of the first year or 2.0 at the end of any other academic year will be dropped from the school for poor scholarship. During the student's senior year a 2.0 average must be obtained in courses taken during that senior year.

A student whose average at the end of the first year is below 1.9 may appeal to the dean, who refers the petition to the Academic Standards Committee to recommend acceptance or denial of a petition for readmission.

#### SCHOOL OF LAW ACADEMIC RULES

Copies of the academic rules of the law school are available in the law library, and are controlling if in conflict with statements contained in this bulletin.

### **Honors**

The Dean's List is compiled every semester and includes those students in each class who rank in the top 15% of full time students. Those students comprising the top 10% of each class are eligible for nomination to membership in Phi Kappa Phi, a national honorary society.

#### GRADUATING HONORS

Individuals in the top 3% of a graduating class are awarded Juris Doctor degrees, Summa Cum Laude; the next highest 7% are awarded Juris Doctor degrees, Magna Cum Laude; and those in the next highest 10% are awarded Juris Doctor degrees, Cum Laude.

### **Tuition and Fees**

Tuition and fees in the School of Law are established by the Board of Trustees and are subject to change whenever conditions make changes necessary. Present tuition and fees for regularly enrolled law students (taking 12 or more



# Instructions

1. A completed application (typewritten or printed in ink) should include:
  - a) a non-refundable \$15.00 application fee
  - b) a completed application for admission form, signed on page 2
  - c) a completed information card (see inside back cover of this catalog)
  - d) a self-addressed stamped acknowledgment card (see inside back cover of this catalog) and
  - e) the Law School Application Matching Form (see paragraph 6, below).
2. These materials should be forwarded to:  
Director of Admissions  
School of Law  
Southern Illinois University  
Carbondale, Illinois 62901
3. Applicants must answer each question on the application. Incomplete applications will be returned and cause a delay in processing.
4. If an answer to any question on the application requires additional space, please submit a printed or typewritten supporting statement which will be treated as a part of the application.
5. To be admitted as a candidate for the Juris Doctor degree, an applicant must have received a bachelor's degree and must have demonstrated capacity for the study of law by a satisfactory undergraduate record and satisfactory performance on the Law School Admission Test (LSAT). An applicant's undergraduate record which consists of less than 75 semester hours (or 113 quarter hours) of graded work may be considered insufficient to give a reliable measure of the applicant's undergraduate performance.
6. SIU School of Law requires for each applicant an official LSDAS report, which is an evaluation by the Law School Data Assembly Service of your college and graduate transcripts, and your score(s) on the Law School Admissions Test. LSAT scores which are more than three years old will not be considered by the admissions committee.

Applicants must register directly with LSDAS by completing the form found in the LSAT Bulletin of Information. This bulletin of information may be obtained on request from the School of Law, from your undergraduate college, or from the Law School Admission Services, Box 2000-C, Newtown, PA 18940.

The School of Law cannot act on an application until it receives an applicant's Law School Application Matching form. The law school must return your form to the Law School Admissions Services to obtain an official LSDAS report. Therefore, be sure to include your LSAM form when you return this application.

7. The School of Law has no formal deadline for the submission of applications. However, applicants are strongly encouraged to submit their completed applications by February 1, 1987. Applications completed after that date will delay the admission decision.

8. Applicants for whom English is not their native language must take the Test of English as a Foreign Language (TOEFL) and supply the School of Law with an official report of the results of such test. (An application form for the TOEFL test will be sent to you by the School of Law at your request.)

The policy of the School of Law at Southern Illinois University is to comply fully with applicable federal and state nondiscrimination and equal opportunity laws, orders, and regulations. The School of Law does not discriminate in its programs and activities against any person because of race, color, national origin, ancestry, religion, age, sex, handicap, or status as a disabled veteran or a veteran of the Vietnam era. This nondiscrimination policy applies to admissions, employment, treatment of individuals, and access to programs.

of part-time students each year, based upon individual needs and economic circumstances.

Do you expect to be employed during the first year of law school?  
Yes ☐ No ☐

If yes, how many hours per week? \_\_\_\_\_

18. My racial or ethnic origin is (answer optional):  
\_\_\_\_\_

(This information is requested so that this institution may demonstrate its compliance with federal regulations.)

19. Were you employed during any academic year while an undergraduate or graduate student? If yes, please indicate the average number of hours worked per week.

Freshman \_\_\_\_\_ Sophomore \_\_\_\_\_ Junior \_\_\_\_\_ Senior \_\_\_\_\_  
Graduate \_\_\_\_\_

20. Are there any physical, social, or economic obstacles which you feel you had to overcome in the course of your education and which are relevant to assessing your prior accomplishments?

Yes ☐ No ☐

If yes, please explain. \_\_\_\_\_

23. I learned about the SIU School of Law from:

\_\_\_\_\_ an SIU School of Law representative  
\_\_\_\_\_ pre-law adviser  
\_\_\_\_\_ pre-law handbook  
\_\_\_\_\_ an SIU School of Law graduate or student  
\_\_\_\_\_ special mailing  
\_\_\_\_\_ other, please specify \_\_\_\_\_

24. I certify that I have read all the information contained in this application and that the answers to the questions are true. I am the author of any statements included with this application. In the event that any information provided is subsequently found to be false, I understand that my acceptance may be voided and my matriculation cancelled.

Applicant's Signature

Date



10. Have you registered with LSDAS during the current academic year?

Yes ☐ No ☐

If not, when did you register? \_\_\_\_\_

11. LSAT: Have taken \_\_\_\_\_, plan to take \_\_\_\_\_

*Date (mo./yr.)*

*Date (mo./yr.)*

12. Have you previously applied to this Law School?

Yes ☐ No ☐

If the answer is yes, please indicate date(s): \_\_\_\_\_

**If you answer "yes" to any of questions 13 through 16, furnish a complete explanation of the circumstances on an attached supplemental sheet.**

13. Have you ever enrolled in any other law school?

Yes ☐ No ☐

Are you eligible to re-enroll there?

Yes ☐ No ☐

14. Have you ever been charged with fraud, immorality, or improper or dishonorable conduct in any kind of proceeding?

Yes ☐ No ☐

15. Have you ever been charged with a crime, other than a minor traffic violation?

Yes ☐ No ☐

16. Have you ever been accused in a court-martial proceeding or received less than an honorable discharge from any branch of the armed services?

Yes ☐ No ☐

17. The ABA accreditation standards define a full-time student as one who devotes substantially all of his/her working hours to the study of law. However, the law school also admits a number

21. The admissions committee of the School of Law encourages each

applicant to submit additional material relevant to the application for admission. The personal statement should be used to explain pertinent information about yourself that may not be evident from the formal academic records alone. Examples of such pertinent information include work experience, community activities, explanation of interruptions in academic work, special programs, and foreign study. Letters of evaluation that offer specific and meaningful insights into your qualifications to study law are encouraged.

22. Do you need additional information? Yes ☐ No ☐

If yes, please check the appropriate box.

☐ LSAT/LSDAS application

☐ TOEFL application (foreign students)

☐ Financial aid information (mailed only to admitted applicants)

☐ Other, please specify \_\_\_\_\_

Present tuition and fees for regularly enrolled law students (taking 12 or more

semester hours) are \$894.70 per semester for residents and \$2,154.70 per semester for non-residents. Books will cost about \$200 per semester.

### Financial Aid

Although the School of Law has limited resources for financial aid at its disposal, there are available through the school:

1. A significant number of research assistantships awarded to members of the second- and third-year classes primarily on a merit basis. Assistantships provide a tuition waiver and a modest monthly salary. Approximately one-third of the upperclass students have assistantship appointments.
2. A limited number of work opportunities in the law library and in the administrative offices of the school.
3. A limited number of cash grants.
4. A limited number of tuition-remission scholarships awarded on an academic basis to first-year students and on a financial-need basis to second- and third-year students.
5. A limited number of fellowships available to minority students with demonstrated financial need.

Specific instructions for applying for financial aid are mailed during the spring to entering students.

The University maintains an Office of Student Work and Financial Assistance through which work on campus, cooperative work-study programs, the federal work-study program, various veterans benefits (both state and federal), and student loans are negotiated. For more specific information, students should contact the Office of Student Work and Financial Assistance, Woody Hall, Southern Illinois University, Carbondale, Illinois 62901.

#### SCHOLARSHIPS AND AWARDS

Current scholarships, honors, and awards are:

James O. Monroe Award

Max Turner Memorial Scholarship Award

Hiram H. and Rosalee Lesar Scholarship Award

W. Philo Gilbert Memorial Scholarship Award

Edgar O. and Bonnie Zimmer Law Scholarship Fund

Cheney and Pirages Award

John S. Rendleman Award

Lincoln's Inn

Order of Barristers

Illinois Bar Foundation Research Fellows

Journal of Legal Medicine Award

Antitrust Award

American Bar Association Section of Urban, State, and Local Government Award

Bureau of National Affairs *Law Week* Award

Matthew Bender Award

Prentice-Hall Tax Award

West Publishing Company Awards

Lawyers Co-op Publishing Company Awards

There are also state and national essay competitions on legal subjects, and scholarships are available to law students at any school from a variety of organizations. Information about these opportunities is available in the law school.



## Housing

University on-campus housing is available for 4,771 single students and 576 married students. Two newly-remodeled residence halls across the street from the law school are reserved for law student single-room occupancy, and several apartments in married student housing are reserved for law students. Off-campus housing is readily available. Inquiries concerning other on-campus or off-campus housing may be obtained from University Housing, Washington Square, Southern Illinois University, Carbondale, Illinois 62901.

## Honor Code

Preparation for law must encourage individual integrity as well as an understanding of law. The School of Law has adopted its own comprehensive ethics and disciplinary code. The high regard for ethical conduct at SIU is reflected in the unique practice of giving each law student a key to the building and library. Copies of the code will be sent to applicants on request and are available in the law library.



## Clinical Program

The school operates an extensive, in-house legal aid clinic. It also offers a limited externship program. The clinic provides selected students with a number of internships and research assistantships. Other students may obtain credit. Clients include the elderly in thirteen southern Illinois counties and the inmates of three state and one federal prison. Students also work with the Land of Lincoln program for indigent persons, with state's attorney's offices, and with public defender and appellate public defender programs. There is an unusual opportunity for variety in the clinic experience. For instance, an Illinois Supreme Court rule enables third-year clinic students to practice in court as long as they are accompanied by a licensed attorney. Clinic credit may not be given before a student's fifth semester. The total hours obtainable are limited.



## Law Journal

The *Southern Illinois University Law Journal*, published quarterly, is a scholarly legal journal which publishes articles and shorter student work on the law and law-related topics. Published materials include articles written by law students, law professors, judges, and other members of the legal profession. The journal is managed and edited by an editorial board made up of third-year law students. Members of the editorial board are elected from those second-year students who have successfully completed the journal's writing program. The writing program involves second-year students in an intensive program of legal research, writing and analysis under the direction of the editorial board. Participation by second-year students in the journal's writing program is determined on both an invitational and a competitive basis open to all students in good standing.

*The Journal of Legal Medicine*, the official quarterly publication of the American College of Legal Medicine, presents, on a regular basis, articles written by students at Southern Illinois University School of Law. This arrangement is designed to allow law students who have special interests in law and medicine to pursue those interests through scholarly research and publication.

## Legal Argumentation

The legal argumentation program is a comprehensive one. It provides a required experience in appellate practice in the first year. This is followed by an opportunity to participate in regional and national competitions, including the ABA-sponsored National Appellate Advocacy and Client Counseling Competitions, the Jessup International Law Moot Court Competition, the National Trial Competition, and the National and ABA Moot Court Competitions. SIU teams have enjoyed great success in these competitions. Law School teams won, in 1985, the national American Bar Association Moot Court Competition and, in 1985 and 1986, the regional rounds of the Jessup International Law Moot Court Competition.



## **Concurrent Degree Programs**

The School of Law, in cooperation with the Graduate School, offers concurrent J.D. and master's degrees in business administration, public affairs, and accountancy. A student must be enrolled in both the graduate program and the law school. The master's programs ordinarily require 30 hours of study, while the law degree requires 90 hours. When the master's and J.D. degrees are pursued concurrently, a significant reduction in the total number of hours required to earn both degrees is achieved. Details of the concurrent degree programs are available from the law school registrar, Norma Brown. Students should make their interest in the concurrent degree program known to the registrar after the completion of the first year of law school study.

## **Student Organizations**

The student body has drafted and adopted a constitution and by-laws for the Student Bar Association of which every regular law school student is a member. The association functions primarily through officers and committees elected by the membership at large and plays an integral role in the operation and governance of the law school. The students who serve as representatives to the faculty meetings are elected by the students, and those who serve on the various faculty committees are appointed by the dean from a list submitted by the Student Bar Association.

Other student organizations are Phi Alpha Delta, Delta Theta Phi, the Donald F. McHenry International Law Society, the Women's Law Forum, the National Lawyers Guild, the Black American Law Students Association, the Christian Legal Society, and law student divisions of the Illinois State Bar Association and the American Bar Association.

## **Placement Services**

A full range of placement services is offered to students and alumni including current job listings, on-campus interviews with prospective employers, and resume assistance. Students are encouraged to begin career planning early in their law school years and to seek summer and part-time legal employment experience. The placement office staff will make every effort to help students identify and pursue employment opportunities.

The School of Law is firmly committed to a policy against discrimination in employment based on sex, race, religion, age, handicap, or national origin, and it expects that all employers who use the placement services will make certain that no such discrimination occurs.

Statistics gathered on the Class of 1985 in February 1986 indicated that 80% of the 104 class members were employed. Sixty percent of the employed graduates had accepted positions in private practice, and 22% held positions with federal, state, or local government. Sixty responses to a salary question indicated a range from \$15,000 to \$39,000. Seventy-five percent of the employed graduates were working in Illinois.



# 2

## Faculty and Staff

### Faculty

W. EUGENE BASANTA, B.A., J.D., LL.M.

#### *Associate Professor of Law*

B.A. Cum Laude 1972, Williams College, Phi Beta Kappa; J.D. with High Distinction 1975, University of Kentucky, Order of the Coif, Law Review; LL.M. 1980, Temple University. Admitted to practice in Kentucky. Law clerk, Fayette County Circuit Court, 1974-75; private practice, Louisville, 1975-78; assistant professor, 1980-85; associate professor at SIU School of Law since 1985. Author of articles in legal periodicals.



ROBERT E. BECK, B.S.L., LL.B., LL.M.

#### *Professor of Law*

B.S.L. 1958, LL.B. 1960, University of Minnesota; LL.M. 1966, New York University. Admitted to practice in Minnesota. Private practice 1960-62; assistant professor, University of North Dakota, 1962-65; visiting associate professor, University of Maine, 1965-66; associate professor, 1966-68, professor, 1968-75, Chester Fritz Distinguished Professor, 1975-76, University of North Dakota; professor at SIU School of Law since 1976. Author of *Drainage Law, 5 Waters and Water Rights* (R. Clark ed. 1967, 1972, 1976); *Water Pollution and Water Quality: Legal Controls* (with Goplerud; Allen Smith Co., 1984); *Illinois Natural Resources Law* (Mason Publishing Co., 1985); and of articles in legal periodicals.



KEITH H. BEYLER, A.B., J.D.

#### *Assistant Professor of Law*

A.B. Magna Cum Laude 1969, Princeton University, Phi Beta Kappa; J.D. Cum Laude 1974, University of Chicago, Order of the Coif, Law Review. Admitted to practice in California. Law clerk, Justice James A. Cobey, California Court of Appeals, 1974-75; private practice, Los Angeles, 1975-82; assistant professor at SIU School of Law since 1982. Author of articles in legal periodicals.





RICHARD DELGADO, A.B., J.D.

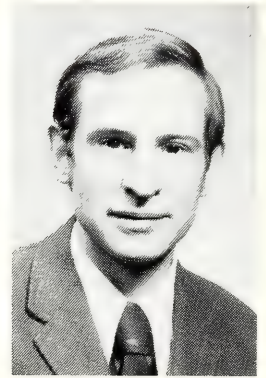
*Dan Hopson Distinguished Visiting Professor, 1986*

A.B., University of Washington; J.D. 1974, University of California. Note and Comment Editor, *California Law Review*. Assistant professor, Arizona State University, 1974-75; Fellow, Yale Law School, 1975-76; associate professor, University of Washington, 1975-78; visiting professor, University of California, Davis, 1981-82, University of Pennsylvania, fall 1984; professor, University of California, Los Angeles, 1978 to present. Author of numerous legal and nonlegal articles.

DARRELL W. DUNHAM, B.A., J.D., LL.M.

*Professor of Law*

B.A. 1968, J.D. Magna Cum Laude 1971, Willamette University; LL.M. 1972, Harvard Law School. Admitted to practice in Washington and Illinois. Law clerk, Justice Sloan, Oregon Supreme Court, 1970; associate professor of law, University of Idaho, 1972-75; visiting professor of law, University of South Dakota, 1975-76; visiting professor of law, University of San Diego, summer 1976; associate professor, 1976-79, professor at SIU School of Law since 1979. Author of articles in legal periodicals.



HOWARD B. EISENBERG, B.A., J.D.

*Associate Professor of Law*

B.A. with Highest Distinction 1968, Northwestern University, Phi Beta Kappa; J.D. with Honors 1971, University of Wisconsin. Admitted to practice in Illinois, Wisconsin, and the District of Columbia. Law clerk, Justice Horace W. Wilkie, Wisconsin Supreme Court, 1971-72; State Public Defender, State of Wisconsin, 1972-78; Defender Director, 1978-79, Executive Director, 1979-83, National Legal Aid and Defender Association; consultant to state and local governments on the delivery of legal services to indigent criminal defendants, 1978-83; associate professor and director, clinical program, at SIU School of Law since 1983. Author of articles in legal periodicals.



MARIA FRANKOWSKA, LL.M., Ph.D., J.S.D.

*Visiting Associate Professor of Law*

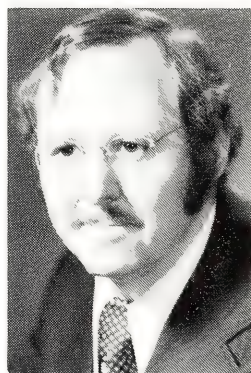
LL.M. 1961, Warsaw University; Ph.D. 1968, Wroclaw University; J.S.D. 1976, Institute of State and Law, Polish Academy of Science. Lecturer, Foreign Trade Department, Central School of Planning and Statistics, Warsaw, 1963-70; assistant professor, 1970-77, associate professor 1978-82, Polish Academy of Sciences, Warsaw; visiting scholar, Treaty Research Center, University of Washington, 1982-83; adjunct professor, spring 1984, visiting associate professor of law at SIU School of Law since fall 1984. Member of Polish Delegation at numerous international conferences; visiting scholar in England and U.S., 1976-77. Author of *Denunciation of International Treaties* (Warsaw, 1976), *International Agreements in Simplified Form* (Warsaw, 1981), and of articles in legal periodicals.



DONALD W. GARNER, B.A., J.D.

*Professor of Law*

B.A. 1967, University of Texas at Arlington; J.D. Cum Laude 1971, University of Texas at Austin, Chancellors Honorary Society, Order of the Coif, Phi Delta Phi, Law Review. Admitted to practice in Texas. Briefing attorney to Chief Justice, Texas Supreme Court, 1971-72; private practice, Dallas 1972-74; assistant professor, 1974-77, associate professor, 1977-80, professor since 1980, associate dean, 1981-84 at SIU School of Law. Faculty advisor, Illinois Judicial Conference, 1976; Amoco Outstanding Teacher Award, 1976. Visiting professor, University of Arkansas School of Law, 1980-81. Author of articles in legal periodicals.



C. PETER GOPLERUD III, B.A., J.D.

*Professor of Law and Associate Dean*

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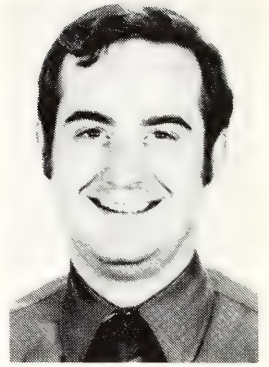




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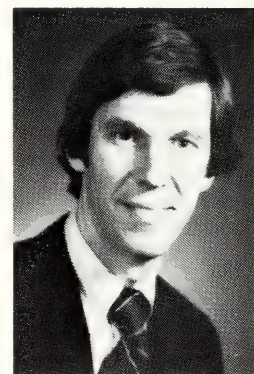
B.A. 1965, University of Notre Dame, Valedictorian; graduate study 1965-66, Stanford University; J.D. 1969, University of Iowa, Editor-in-Chief of Law Review. Private practice, Chicago, 1969-71; assistant professor, 1971-75, associate professor, 1975-79, Washington University; fellowship in Law and Humanities, Harvard Law School, 1976-77; private practice, St. Louis, 1979-81; associate professor 1981-84, professor at SIU School of Law since 1984. Author of articles in legal periodicals.



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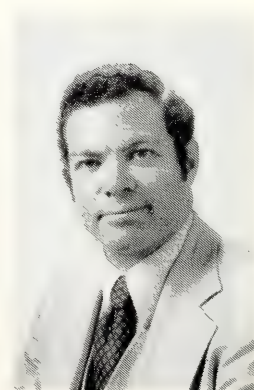
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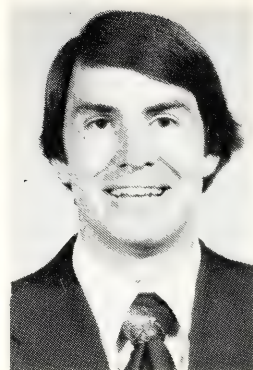




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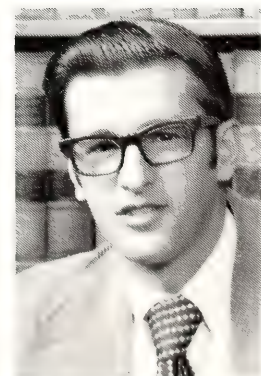
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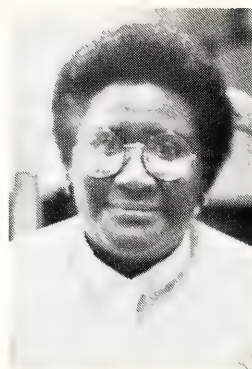
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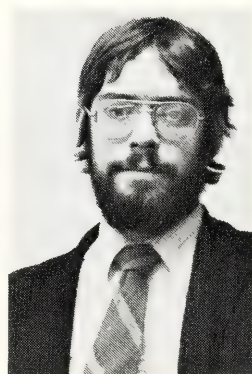
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- We have received your application for admission. Before the admissions committee can consider your application, the following items must be received. Please take whatever steps are necessary to furnish us with the missing items:  
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## Information Card

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Sex

Applying for Fall,

Year

LSDAS Reg. No.

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Soc. Sec. No.

Permanent Address

Street

County

( )

City

State

Zip

Telephone

Local Address

Street

County

( )

City

State

Zip

Telephone

Undergraduate School

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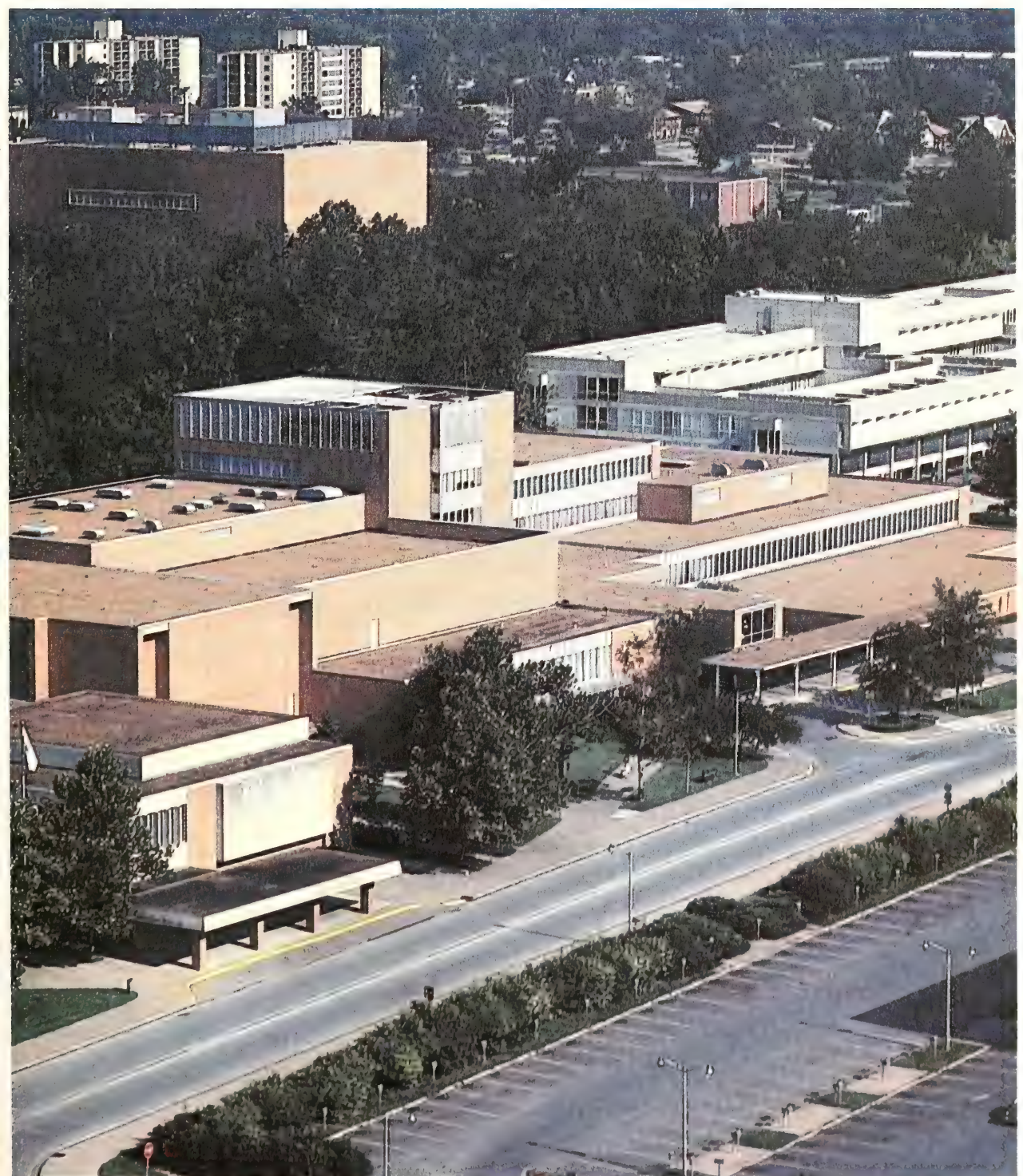




# Southern Illinois University at Carbondale

## Bulletin

1987-1988 Undergraduate Catalog





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Southern Illinois University at Carbondale complies fully with applicable federal and state non-discrimination and equal opportunity laws, orders, and regulations in admission, employment, and access to university programs and activities. Complaints or requests for further information should be directed to the University Affirmative Action Office, Anthony Hall 104, 536-6618.

Southern Illinois University at Carbondale is committed to creating and maintaining a university community free from all forms of sexual harassment. Copies of the *Sexual Harassment Policy and Grievance Procedures* are available in the University Affirmative Action Office. Problems should be reported to the University Ombudsman, Woody Hall C302, or to the University Affirmative Action Office, Anthony Hall 104.

This publication provides information about the University. Primary attention is given to its academic program, rules and regulations, and procedures. Students starting their collegiate training during the period of time covered by this catalog (summer 1987 through spring 1988) are subject to the curricular requirements as specified herein. Should these requirements subsequently be changed by the University, students are assured that necessary adjustments will be made so that no additional time is required of them, because of these changes in meeting their educational objectives. Where programs include requirements established by agencies external to the University, every effort will be made to follow this same principle so far as possible. Should subsequent curricular requirements changes work to the students' advantage, they may elect to meet the new requirements rather than those contained herein. This curricular requirement arrangement will extend for a seven calendar year period from date of entry for baccalaureate programs and three years for associate programs. If the students have not met their undergraduate educational objectives by that time, they will then become subject to current curricular requirements. Should the University find it necessary to discontinue an academic program, the effective date, unless otherwise dictated, will be such that the last regularly admitted class will be able to complete the program in regular time sequence. This means four years for baccalaureate and two years for associate programs. The University reserves the right to change information contained herein on matters other than curricular requirements without regard as to their date of entry into college.





Southern  
Illinois  
University  
at Carbondale

## Bulletin

1987-1988  
Undergraduate  
Catalog

**Southern Illinois University  
at Carbondale Bulletin (USPS 506-080)**

Volume 28, Number 4, October 1986

Second-class postage paid at Carbondale, Illinois 62901. Published by Southern Illinois University at Carbondale, Carbondale, Illinois 62901, four times per year, in June, July, August, and October.

POSTMASTER: Send address changes to Academic Publications c/o University Publications, Southern Illinois University at Carbondale, Carbondale, IL 62901.

# This Catalog

The Undergraduate Catalog covers in detail questions concerning the undergraduate program of Southern Illinois University at Carbondale for the period from summer, 1987 through spring, 1988. It supersedes Volume 27, Number 5.

The following publications may be obtained free from University Publications, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

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School of Law Catalog

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# Board of Trustees and Officers of Administration

## Board of Trustees of Southern Illinois University

	Term Expires
Harris Rowe, <i>Chairman</i> , Jacksonville	1989
A.D. Van Meter, Jr., <i>Vice-Chairman</i> , Springfield	1987
Carol Kimmel, <i>Secretary</i> , Moline	1989
Barnard B. Birger, Collinsville	1987
Ivan A. Elliott, Jr., Carmi	1991
William R. Norwood, Rolling Meadows	1989
George T. Wilkins, Jr., Edwardsville	1991
Edward G. Lance, (Student Trustee) Carbondale	1987
Debbie Schlautman, (Student Trustee) Edwardsville	1987
Sharon Holmes, <i>Executive Secretary of the Board of Trustees</i>	

## Officers of Central Administration, Southern Illinois University

- Lawrence K. Pettit, *Chancellor*
- James M. Brown, *Vice-Chancellor*
- Howard Webb, *Vice-Chancellor for Academic Affairs*
- Thomas C. Britton, *Executive Assistant to the Chancellor and System Administrative Officer*
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- Donald W. Wilson, *System Financial Officer and Board Treasurer*

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- Clarence G. Dougherty, *Vice-President for Campus Services*
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- John H. Baker, *Executive Director for Planning and Budgeting*
- Jack Dyer, *Executive Director of University Relations*
- Richard G. Higginson, *University Legal Counsel*
- William Bailly, Jr., *Assistant to the President for Affirmative Action*

# University Calendar

## **Summer Session, 1987**

Eight-Week Session Begins  
Independence Day Holiday  
Final Examinations

Commencement

Monday, June 15, 7:30 A.M.  
Friday, July 3  
Thursday, August 6, and Friday,  
August 7  
Saturday, August 8

## **Fall Semester, 1987**

Fall Orientation

Semester Classes Begin  
Labor Day Holiday  
Thanksgiving Vacation

Final Examinations

Wednesday, August 19 – Sunday,  
August 23  
Monday, August 24, 8:00 A.M.  
Monday, September 7  
Saturday, November 21, 12:00 NOON –  
Monday, November 30, 8:00 A.M.  
Monday, December 14 – Friday,  
December 18

## **Spring Semester, 1988**

Martin Luther King, Jr.'s Birthday  
Semester Classes Begin  
President's Day  
Spring Vacation

Final Examinations  
Commencement

Monday, January 18  
Tuesday, January 19, 8:00 A.M.  
Monday, February 15  
Saturday, March 12, 12:00 NOON –  
Monday, March 21, 8:00 A.M.  
Monday, May 9 – Friday, May 13  
Saturday, May 14, and Sunday,  
May 15

## **Excused Absences for Religious Holidays**

Students absent from classes because of required observances of major religious holidays will be excused. It is the student's responsibility to notify the instructor of each class that will be missed in advance of the absence. Students must also take the responsibility for making up work missed.

# 1 General Information

## The University

### **Southern Illinois University at Carbondale**

Southern Illinois University at Carbondale, Carbondale, Illinois, has taken pride in the quality of its services since its doors were first opened in 1874. Outstanding departments, distinguished faculty, thorough and inspired teaching, and a thoughtful approach to the blending of old wisdom with new knowledge, as well as student services from admission to placement, combine with the University's enviable location to provide a rewarding educational experience.

Every member of the University faculty is a student as well as a teacher bringing the products of research and scholarship into the classroom. The University has many distinguished scholars on its faculty honored by their peers for important contributions to the fields they study. Contact with these hard-working educators offers students the best possible entry into the world of today where ideas and technology mesh. As students progress in their studies they will work along with faculty members and may eventually be able to participate in ongoing research projects or set up projects of their own. Other courses may lead to internships or practicum work on campus or in the area around the University.

Morris Library, a major resource for students and faculty, contains more than 1.7 million volumes, 2.2 million units of microform, and 15,000 periodical subscriptions. These materials are in open stacks, available to every student. There are also important collections of original research materials, as well as support services such as a map library, records and tapes, and a self-instruction center. Many disciplines require laboratories; some are the traditional variety and some are in orchards, barns, hangars, machine shops, sound chambers, computer labs, archaeological digs, sewing rooms, kindergartens, and clinics.

The University offers a great variety of services to students. The Office of Admissions and Records personnel oversee registration and keep track of students' progress from entrance to graduation. Financial experts, wise in the field of money for education, work tirelessly to find the right combination of loans, grants, and on- and off-campus employment to keep each student in school. Residence halls are available on campus as are furnished and unfurnished apartments for families. Approved housing for freshmen and sophomores is monitored by the University, and those seeking other housing in Carbondale and the surrounding area have access to advice from housing staff. Counseling services are ready to help students deal with scholastic, family, emotional, medical, legal, or financial problems.

The University provides an aggressive placement program on a number of levels. Career Planning and Placement Service presents career fairs and regular visits by recruiters from large employers. Career counselors are ready to work with



students from the time of their enrollment. Seminars and workshops are conducted regularly and a career library is maintained. Some schools and departments have highly successful recruitment programs of their own. Placement services do not stop at graduation – the University keeps a current placement file for every interested graduate, and Alumni Services offers referral assistance.

Carbondale, an economic center of Southern Illinois, has been cited in a recent study as one of the fifty most desirable places to live in the United States. Only a few hours from Chicago, St. Louis, and Memphis, the University sits amid rolling hills, farmlands, and orchards just 60 miles above the confluence of the Mississippi and Ohio rivers. Glacial deposits of rock have left the area from Carbondale south ruggedly scenic and suitable for a wide range of outdoor activities. Four large recreational lakes are within minutes of the campus; the two great rivers, the spectacular 240,000-acre Shawnee National Forest, and a large number of smaller lakes, state parks, and recreational areas are within easy driving distance. The Mid-South climate is ideal for year-around outdoor activities – even a little cross-country skiing now and then. The campus itself is a marvel of landscaping, planted with native trees and shrubs and blooming flora.

Activities on campus are equally inviting. There are over 300 student organizations – special interest, political, Greek, religious, service – intramurals from baseball to Ultimate Frisbee, a recreational lake on campus, eleven intercollegiate sports programs for women and ten for men, and great varieties of diverting entertainment. A large indoor recreational center contains an Olympic-sized pool, weight rooms, game courts of all kinds, diet and exercise programs, instruction, and equipment that can be checked out for outdoor recreation.

At this modern university in a rural setting one can benefit from the best of both worlds – the scenic wonders, the small-town friendliness, the easy access to all the area has to offer, and the resources of a sophisticated faculty and staff with the latest in technological marvels at its command.

### Accreditations and Affiliations

North Central Association of Colleges and Secondary Schools

National Council for Accreditation of Teacher Education

Accreditation Council of the American Assembly of Collegiate Schools of Business (undergraduate and master's level programs)

Accreditation Board for Engineering and Technology, Inc.

American Association for Accreditation of Laboratory Animal Care

American Association of Museums (University Museum)

American Bar Association

American Board of Funeral Service Education (Mortuary Science program)

American Chemical Society

Accrediting Council on Education in Journalism and Mass Communication

Commission on Dental Accreditation of the American Dental Association (Dental Hygiene and Dental Laboratory Technology programs)

Commission on Accreditation of Rehabilitation Institutes (Evaluation Development Center)

Committee on Allied Health Education on Accreditation (CAHEA)

American Dietetic Association (programs meet standards for traditional baccalaureate programs in field of nutrition or dietetics)

American Medical Association and American Association of Medical Colleges

American Physical Therapy Association (Physical Therapist Assistant program)

American Psychological Association (Counseling psychology and clinical training program)

American Board of Examiners in Speech-Language-Hearing

Council on Rehabilitation Education (Rehabilitation Counseling program)

Council on Social Work Education

National Association of Schools of Art and Design

Federal Aviation Administration (Aviation Technology program)  
Foundation for Interior Design Education Research  
Illinois Office of Education  
Superintendent of Education  
State Teacher Certification Board  
Illinois State Board of Education  
Illinois Department of Registration and Education (Associate Degree Nursing program)  
National Association of Industrial Technology (B.S. program in Industrial Technology)  
Committee on Allied Health Education for Accreditation (CAHEA) of the American Medical Association and the Joint Review Committee for Radiologic Technology Education  
Society of American Foresters  
National Shorthand Reporters Association (court reporter training program)  
Association of University Programs in Health Administration (AUPHA) (Health Care Services option of B.S. degree in Technical Careers)  
National Athletic Trainers Association  
National Recreation and Parks Association (National accreditation council)  
University Council for Vocational Education

National Collegiate Honors Council  
Upper Midwest Honors Council  
Honors Council of the Illinois Region  
Association of American Law Schools  
National Association of Schools of Public Affairs and Administration  
American Institute of Professional Geologists  
Association of Research Libraries  
The Association of American University Presses  
National League for Nursing  
Committee on Allied Health Administration (CAHEA) and the Joint Review Committee for Respiratory Therapy Education  
American Association of Airport Executives  
National Fire Protection Association  
Western Association of Schools and Colleges  
Photo-Marketing Association International  
American Institute of Architects  
Association of Collegiate Schools of Architecture  
National Association of Schools of Music  
National Institute for Automotive Service Excellence

## **Faculty**

The University faculty is dedicated to excellence in teaching and to the advancement of knowledge in a wide variety of disciplines and professions. Many faculty members are well known both nationally and internationally for their many varied research contributions. The Undergraduate Catalog lists the numerous programs offered by the faculty and, in addition, in Chapter 6 of this catalog the faculty members are listed by departments in which they are appointed.

## **Curricula**

The undergraduate majors and minors offered by Southern Illinois University at Carbondale are listed below in alphabetical order. Also indicated is whether a major, a minor, or both are offered. The academic unit which offers the major is listed as is the degree the student would expect to receive upon graduation. If a major may be completed in more than one academic unit, the other units are listed on additional lines. For example, the biological sciences major is offered through the College of Science. Students planning to teach biological sciences may also complete the major in the College of Education. The requirements for each of the programs listed below are explained in Chapter 4 of this bulletin. The degree abbreviations used are: A.A.S., Associate in Applied Science; B.A., Bachelor of Arts; B.F.A., Bachelor of Fine Arts; B.Mus., Bachelor of Music; and B.S., Bachelor of Science.

In addition to the majors and minors listed, preprofessional programs may be



completed in dentistry, law, medicine, nursing, optometry, pharmacy, physical therapy, podiatry, public health, theology, and veterinary science.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Accounting	X		College of Business and Administration	B.S.
Administration of Justice	X	X	College of Human Resources	B.S.
African Studies		X		
Aging Studies		X		
Agribusiness Economics	X	X	School of Agriculture	B.S.
Agricultural Education	X		School of Agriculture	B.S.
			College of Education	B.S.
Agricultural Education and Mechanization	X	X	School of Agriculture	B.S.
Agriculture, General	X	X	School of Agriculture	B.S.
Allied Health Careers	X		School of Technical Careers	A.A.S.
Animal Industries	X	X	School of Agriculture	B.S.
Anthropology	X	X	College of Liberal Arts	B.A.
Aquatics <sup>3</sup>		X		
Architectural Technology	X		School of Technical Careers	A.A.S.
Art	X	X	College of Communications and Fine Arts	B.A., B.F.A.
			College of Education	B.S.
Asian Studies		X		
Athletic Training <sup>3</sup>		X		
Automotive Technology	X		School of Technical Careers	A.A.S.
Aviation Flight	X	X	School of Technical Careers	A.A.S.
Aviation Maintenance Technology	X		School of Technical Careers	A.A.S.
Aviation Management	X		School of Technical Careers	B.S.
Avionics Technology	X		School of Technical Careers	A.A.S.
Biological Sciences	X	X	College of Science	B.A.
			College of Education	B.S.
Black American Studies		X		
Botany	X	X	College of Science	B.A.
Business and Administration	X		College of Business and Administration	B.S.
Business Economics	X		College of Business and Administration	B.S.
Business Education <sup>6</sup>	X	X	College of Education	B.S.
Career Development	X		School of Technical Careers	B.S.
Chemistry	X	X	College of Science	B.A., B.S.
			College of Education	B.S.
Child and Family <sup>4</sup>	X	X	College of Education	B.S.
Chinese <sup>1</sup>		X		
Cinema and Photography	X		College of Communications and Fine Arts	B.A.



SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Civil Engineering	X		College of Engineering and Technology	B.S.
Classical Civilization <sup>1</sup>		X		
Classics <sup>1</sup>	X		College of Liberal Arts	B.A.
Clothing and Textiles <sup>6</sup>	X	X	College of Education	B.S.
Coaching <sup>3</sup>		X		
Commercial Graphics – Design	X		School of Technical Careers	A.A.S.
Communication Disorders and Sciences	X		College of Communications and Fine Arts	B.S.
			College of Education	B.S.
Community Development		X		
Comparative Literature		X		
Computer Information Processing	X	X	School of Technical Careers	A.A.S.
Computer Science	X	X	College of Liberal Arts	B.A.
Construction Technology	X		School of Technical Careers	A.A.S.
Consumer Economics and Family Management	X		School of Technical Careers	B.S.
Consumer Studies <sup>2</sup>		X		
Dance <sup>3</sup>		X		
Dental Hygiene	X		School of Technical Careers	A.A.S.
Dental Technology	X		School of Technical Careers	A.A.S.
Design	X		Communication and Fine Arts	B.A.
Early Childhood Education <sup>4</sup>	X		College of Education	B.S.
Earth Science		X		
East Asian Civilizations <sup>1</sup>		X		
Economics	X	X	College of Liberal Arts	B.A.
Educational Media <sup>4</sup>		X		
Electrical Engineering	X		College of Engineering and Technology	B.S.
Electronics Management	X		School of Technical Careers	B.S.
Electronics Technology	X		School of Technical Careers	A.A.S.
Elementary Education <sup>4</sup>	X		College of Education	B.S.
Engineering	X		College of Engineering and Technology	B.S.
Engineering Technology	X		College of Engineering and Technology	B.S.
English	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Equine Studies <sup>7</sup>		X		
Finance	X		College of Business and Administration	B.S.
Fire Science Management	X		School of Technical Careers	B.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Food and Nutrition	X		School of Agriculture	B.S.
Foreign Language and International Trade	X		College of Liberal Arts	B.A.
Forestry	X		School of Agriculture	B.S.
French <sup>1</sup>	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Geography	X	X	College of Liberal Arts	B.A., B.S.
			College of Education	B.S.
Geology	X	X	College of Science	B.A., B.S.
German <sup>1</sup>	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Greek <sup>1</sup>		X		
Health Care Management	X		School of Technical Careers	B.S.
Health Education	X		College of Education	B.S.
History	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Home Economics Education <sup>6</sup>	X		College of Education	B.S.
Industrial Technology	X		College of Engineering and Technology	B.S.
Interior Design	X		School of Technical Careers	B.S.
Japanese <sup>1</sup>		X		
Journalism	X	X	College of Communica- tions and Fine Arts	B.S.
Language Arts (English and Reading) <sup>4</sup>	X		College of Education	B.S.
Latin <sup>1</sup>		X		
Law Enforcement	X		School of Technical Careers	A.A.S.
Linguistics	X	X	College of Liberal Arts	B.A.
Management	X		College of Business and Administration	B.S.
Marketing	X		College of Business and Administration	B.S.
Mathematics	X	X	College of Science	B.S.
			College of Liberal Arts	B.A.
			College of Education	B.S.
Mechanical Engineering	X		College of Engineering and Technology	B.S.
Microbiology	X	X	College of Science	B.A.
Mining Engineering	X		College of Engineering and Technology	B.S.
Mortuary Science and Funeral Service	X		School of Technical Careers	A.A.S.
Museum Studies		X		
Music	X	X	College of Communica- tions and Fine Arts	B.Mus., B.A.
			College of Education	B.S.
Nursing <sup>8</sup>	X		School of Technical Careers	A.A.S.
Occupational Education <sup>6</sup>	X		College of Education	B.S.

SUBJECT	MAJOR	MINOR	ACADEMIC UNIT	DEGREE
Paralegal Studies for Legal Assistants	X	X	College of Liberal Arts	B.S.
Philosophy	X	X	College of Liberal Arts	B.A.
Photographic Production Technology	X		School of Technical Careers	A.A.S.
Physical Education	X	X	College of Education	B.S.
Physical Therapist Assistant	X		School of Technical Careers	A.A.S.
Physics	X	X	College of Science	B.S.
			College of Education	B.S.
Physiology	X	X	College of Science	B.A.
Plant and Soil Science	X	X	School of Agriculture	B.S.
Political Science	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Psychology	X	X	College of Liberal Arts	B.A.
Radio-Television	X		College of Communica- tions and Fine Arts	B.A.
Radiologic Technology	X		School of Technical Careers	A.A.S.
Recreation	X	X	College of Education	B.S.
Religious Studies	X	X	College of Liberal Arts	B.A.
Respiratory Therapy Technology	X		School of Technical Careers	A.A.S.
Russian <sup>1</sup>	X	X	College of Liberal Arts	B.A.
Secretarial and Office Specialties	X	X	School of Technical Careers	A.A.S.
Social Studies	X		College of Education	B.S.
Social Work	X		College of Human Resources	B.S.
Sociology	X	X	College of Liberal Arts	B.A.
Spanish <sup>1</sup>	X	X	College of Liberal Arts	B.A.
			College of Education	B.S.
Special Major <sup>9</sup>	X			B.A., B.S.
Special Education	X		College of Education	B.S.
Speech Communication	X	X	College of Communica- tions and Fine Arts	B.S.
			College of Education	B.S.
			College of Liberal Arts	B.A.
Theater	X	X	College of Communica- tions and Fine Arts	B.A.
Tool and Manufacturing Technology	X		School of Technical Careers	A.A.S.
Uncommon Languages <sup>5</sup>		X		
University Studies	X			B.A., B.S.
Women's Studies		X		
Zoology	X	X	College of Science	B.A., B.S.
			College of Education	B.S.

<sup>1</sup>Described under Foreign Languages and Literatures  
<sup>2</sup>Described under Consumer Economics and Family Management  
<sup>3</sup>Described under Physical Education  
<sup>4</sup>Described under Curriculum, Instruction, and Media  
<sup>5</sup>Described under Linguistics  
<sup>6</sup>Described under Vocational Education Studies  
<sup>7</sup>Described under Animal Industries  
<sup>8</sup>Described under Associate Degree Nursing  
<sup>9</sup>A special major may be completed in any academic unit



## Visits to Campus

We welcome prospective students, their families, friends, and other interested people to learn about Southern Illinois University at Carbondale through various on-campus and off-campus events. Activities on campus include campus visits, group visit days, and open houses. SIU Previews are held in several off-campus locations around Illinois each year.

*Campus Visits.* Campus visits are available by appointment Monday through Friday, 8:00 a.m. to 4:30 p.m. To make best use of the visit, plan to arrive by 2:00 p.m. Please make your reservations approximately seven days in advance. An admissions counselor will advise you about academic programs, student services, admission policies and procedures, housing options, financial aid, and general information about the University and community. Guided tours of the campus are available. Appointments with departmental representatives can be arranged with advance notice.

*Group Visit Days.* Group visit days are, quite simply, campus visits by groups of people. The same arrangements are available, but an advance reservation is a must.

*Open Houses.* Open houses are held on campus four or five times each year. Activities include admissions counseling, departmental exhibits, displays by student organizations, presentations on financial aid and other student services, campus and departmental tours, and opportunities to enjoy other events or activities.

*SIU Previews.* SIU Previews are events held in locations from October through May to bring SIUC within easy traveling distance of nearly every Illinois community. Activities include admissions counseling, small group and individual sessions on financial aid, a dynamic audio-visual presentation entitled "SIU Today", consultation about University housing, and information displays on many other programs and services.

For reservations on campus visits and group visit days or for information about any of these events, write New Student Admission Services, Southern Illinois University at Carbondale, Carbondale, Illinois 62901 or call 800-642-3531 (toll free in Illinois) or 618-536-4405 (direct).

## Applying for Admission

Request application from the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, or call toll free in Illinois 800-642-3531. For admissions requirements see Chapter 2.

## Campus Living

### On-Campus Housing for Single Students

The University offers a variety of living experiences through the on-campus residence halls for single students. These halls provide not only the usual room and board but also have special opportunities for participation in recreational and academic activities. Two distinct advantages of living on campus are the ready access to all facilities of the campus, such as the library, and the absence of a need for special transportation since all campus activities are within easy walking distance. Meal service in all areas except Greek Row provides 20 meals a week; three meals each day six days a week and breakfast and noon dinner on Sunday. Unlimited second helpings are offered, and a new feature is a special diet table for stu-

dents with special health problems. Co-ed living is available in all housing areas. All rooms are equipped with twin-sized beds, closet space, chest of drawers, desks, study chairs, and draperies. Linen service provides two sheets and one pillowcase weekly. Study lamps, pillows, towels, and other bedding materials must be provided by the student.

Freshmen under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls, or similar privately-owned residence halls. The privately-owned residence halls must provide facilities, food service, and supervision comparable to on-campus housing. Sophomores under the age of 21, not living with parents or guardians, are required to live in on-campus residence halls or University-accepted off-campus housing. Sophomore approved off-campus housing includes apartments, rooming houses and residence halls. There are no university regulations for junior, senior, graduate, married students or those students 21 years of age or over. Housing contracts are for the school year (fall and spring semesters) with summer contracts being issued separately. The residence halls close during breaks and official University vacations.

*Rates.* 1986-87 room and board rates for the three on-campus residential areas is \$2,568 (\$1284 per semester) plus a \$12 campus housing activity fee. Students contracting for fall semester must purchase a two-semester contract.

*Brush Towers.* Brush Towers, a coeducational residential area, consists of two 17-story air-conditioned halls, Mae Smith and Schneider Tower. The commons unit is Grinnell Hall which provides the food service, snack bar, post office, and area of office. There is a large study area and computer lab located on the lower level of Trueblood Hall. This facility is available to all Brush Towers residents. The facility offers terminals which provide access to the University's mainframe computer as well as a number of personal computers. All are available free of charge to on-campus residents.

*Thompson Point.* Thompson Point consists of eleven air-conditioned halls, each housing approximately 120 students. Lentz Hall serves as the commons unit for food service and such services as a library, post office, snack bar, recreation center, and game rooms. Included in the Thompson Point residential area are special facilities for handicapped students. There is a study area and computer lab located in the lower level of Lentz Hall. This facility is available to all Thompson Point residents. The facility offers terminals which provide access to the University's mainframe computer as well as a number of personal computers. All are available free of charge to on-campus residents.

*University Park.* The University Park coeducational residential area is air-conditioned and consists of Neely Hall, a 17-story residence hall, and Allen, Boomer, and Wright Halls, four-story triad buildings. Trueblood Hall serves as the commons unit providing the cafeteria, snack bar, library, computer room, and post office. University Park is connected to the campus by an overpass which reaches from Trueblood Hall to the main campus. There is a large study area and computer lab located on the lower level of Trueblood Hall. This facility is available to all University Park residents. The facility offers terminals which provide access to the University's mainframe computer as well as a number of personal computers. All are available free of charge to on-campus residents.

More information on application forms may be obtained by writing the supervisor of contracts, University Housing, Building D, Washington Square.

*Greek Row.* The Greek Row housing area provides housing for recognized sororities and fraternities. Each building houses about forty students and includes a



formal lounge, dining area, and kitchen. Assignment of students to this area is by invitation from the fraternal organization.

### **Housing for Married Students**

There are 587 apartments, both furnished and unfurnished, available for married students. The costs are from \$232 to \$316 per month with all utilities furnished. More information or application forms may be obtained by writing family housing, Building B, Washington Square.

### **Off-Campus Facilities**

University Housing seeks continually to influence both the availability and quality of off-campus housing for students in terms of meeting as fully as possible the educational, physical, social, and economic needs of students living off-campus as these needs relate to the objectives of the University. Several privately owned accepted living centers are available for freshmen and sophomores desiring to live off-campus. The costs range from \$250 to \$450 per month. Information may be obtained by writing directly to the supervisor of off-campus housing, Building B, Washington Square. It is not considered wise to contract for an off-campus living facility, sight unseen.

## **Student Work and Financial Assistance**

The Office of Student Work and Financial Assistance aids students in seeking monetary assistance to finance their postsecondary education at Southern Illinois University at Carbondale.

A package of financial aid is prepared for those students who qualify. The package may include scholarships, grants, work, and loans. The financial aid package offered is contingent upon both the availability of program funds and each student's demonstrated financial need, as determined by the American College Testing Program Family Financial Statement (ACT/FFS) form.

Grants and scholarships are gift aid which are not repaid to the donor. Loans are repaid after the student leaves school but are offered at a lower than market rate of interest. Student work is offered to all students who desire to earn money while attending the University. The amount a student may earn is determined by the amount of other financial aid received. The total aid including work cannot exceed the cost of attending the University.

Southern Illinois University at Carbondale distributed nearly \$60 million in financial aid last year to approximately 80% of all students. Over 5,000 student workers were employed by the University.

### **Major Financial Aid Programs**

The University participates in the major federal, state, and institutionally-funded aid programs. These programs include such as the Pell Grant, Illinois State Scholarship Commission Monetary Award, Guaranteed Student Loan, National Direct Student Loan, Student-to-Student Grant, Supplemental Educational Opportunity Grant, and the Student Work Program.

The *Financial Aid Opportunities* brochure summarizes the major types of financial aid coordinated through the Office of Student Work and Financial Assistance. The brochure includes a chart which lists more than forty types of financial aid including a brief description of each program, the application procedures, and the corresponding deadlines. A copy of the brochure is available upon request.

*Grants.* The major grant programs include the Pell Grant and the Supplemental



**Educational Opportunity Grant.** Both of these are based on financial need as determined by the ACT/FFS.

**Scholarships.** The largest scholarship program is the Illinois State Scholarship Commission Monetary Award. This scholarship is also based on need as determined by the ACT/FFS and pays tuition and fees or a portion thereof.

Southern Illinois University at Carbondale distributes several scholarships based on scholastic achievement to new freshman and Illinois community college transfer students (associate degree graduates only). These scholarships include the SIU Academic Scholarship, the Presidential Scholars Award, the SIU Foundation Scholars Award, and the SIU Foundation Merit Award. Students eligible to receive these awards will be contacted directly by New Student Admission Services.

Recipients of merit scholarships are selected each spring semester by academic departments and colleges of the university. Also, a limited number of private scholarships are available during the year in some academic departments. For more information, you should contact your academic department.

Students interested in seeking a private grant or scholarship should check as many sources as possible including high schools, local clubs and civic organizations, businesses, church groups, alumni organizations, and commercial lending institutions. In addition, public libraries are an excellent source for information on state and private scholarship money.

**Loans.** The major loan programs include the Guaranteed Student Loan, the Parental Loan for Undergraduate Students, and the National Direct Student Loan. Students must have a current ACT/FFS on file for loan consideration and processing. The NDSL is borrowed from the school. Since these funds are limited, students are encouraged to mail their ACT/FFS before April 1, 1987. The GSL and PLUS loans are borrowed from a hometown bank or a local lending institution.

**Employment.** To apply for an on-campus student work job, students must have a current ACT/FFS on file. Students can work a maximum of twenty hours a week at the prevailing minimum wage. Once students arrive on campus, they should review the job listing board in the Office of Student Work and Financial Assistance to determine which jobs interest them. A referral will be given to students to interview with prospective on-campus employers.

In addition, a representative is available to give referrals to part-time off-campus jobs. Approximately 3,000 students work off-campus during an academic year.

**Other Types of Aid.** Veterans, social security, railroad retirement, and civil service retirement benefits are also available to those who qualify. The *Financial Aid Opportunities* brochure gives more information on these and other financial aid programs.

### **Application for Financial Assistance for the 1987-88 Academic Year**

**Special Note to Students:** Because of the Federal Reauthorization Process, Gramm-Rudman-Hollins, and other congressional bills, the Office of Student Work and Financial Assistance expects major changes in some financial aid programs for the 1987-88 academic year. One of the major changes expected involves the application process for the Guaranteed Student Loan.

At the time of printing this publication, final rules and regulations are pending. Therefore, please contact the Office of Student Work and Financial Assistance for the most recent information.

To determine financial need, it is necessary for students, with their parents, to complete and submit the 1987-88 ACT/FFS. To have Southern Illinois University at Carbondale receive a copy of the need analysis, students must enclose the ACT processing fee and enter the University's school code (#1144). The University does not accept the College Scholarship Service Financial Aid Form (CSS/FAF).

The ACT/FFS allows students to apply for the majors programs coordinated through the Office of Student Work and Financial Assistance. Students should complete and mail their ACT/FFS form as early as possible since campus-based aid funding is limited and distributed to eligible students on a first-come, first-served basis. Priority consideration for campus-based aid will be given to those students who complete and mail their ACT/FFS before April 1, 1987. The ACT/FFS forms are available in January and may be obtained from local high schools, community colleges, or from the Office of Student Work and Financial Assistance.

### **Transfer Students**

Students who have attended another college or university will be classified as transfer students. Transfer students applying for financial aid must have a Financial Aid Transcript sent to the Office of Student Work and Financial Assistance indicating all financial aid received from previous schools. Even though students may not have received financial assistance, federal regulations mandate the Office of Student Work and Financial Assistance have that verification. No aid will be awarded until all Financial Aid Transcripts are received. These forms may be obtained from the Office of Student Work and Financial Assistance.

Students who are transferring in the middle of an academic year and are receiving the National Direct Student Loan, Supplemental Educational Opportunity Grant, or student work must reapply for those awards by submitting the 1987-88 ACT/FFS. Students who receive Guaranteed Student Loans or Parental Loan for Undergraduate Students should contact the Office of Student Work and Financial Assistance to determine loan eligibility and application procedures.

Students who are transferring in the middle of an academic year and are receiving Pell Grant must obtain a duplicate set of the Student Aid Report from the Pell Grant program to submit to the Office of Student Work and Financial Assistance. Transfer students who receive ISSC awards must change the school name on the Pell Grant Student Aid Report and resubmit to the Pell Grant Program to be forwarded to ISSC. ISSC will recompute and adjust the ISSC award to reflect the cost of attending the University.

### **Academic Progress Standards for Financial Assistance**

The University requires that a student be making satisfactory progress toward a degree if that student wishes to receive financial aid funds. A student is making satisfactory progress toward a degree if successfully meeting two basic academic standards. First, a student must complete a reasonable number of credit hours toward a degree each academic year. Second, a student must maintain a scholastic standing, derived from grades, that allows for continued enrollment at the University under current academic guidelines. A copy of the policy on satisfactory progress is available upon request from the Office of Student Work and Financial Assistance.

Students desiring additional information should contact the Office of Student Work and Financial Assistance, Woody Hall, B Wing, third floor, telephone (Area Code 618) 453-4334.



## Admission Policies, Requirements, Procedures

In order to attend classes at Southern Illinois University at Carbondale, students must gain official admission to the University and must complete the enrollment process, which includes advisement, registration, and payment of fees.

Applications for admission to the University are accepted anytime during the calendar year but should be submitted at least thirty days prior to the beginning of classes.

The University may close admission for students or programs whenever the availability of faculty or facilities warrant.

All beginning freshman applicants must submit entrance examination scores except those who are twenty-one years of age and who qualify for admission by class rank. Transfer students are also required to submit entrance examination scores if they are less than twenty-one years of age and have fewer than twenty-six semester hours (thirty-nine quarter hours) of acceptable transfer work. Currently the ACT (American College Test) is the required entrance examination.

The College of Engineering and Technology and the College of Business and Administration have implemented new admission policies. These new policies are described in Chapter 3.

### Admission of Freshmen

To be eligible for admission, applicants must be graduates of recognized high schools. Graduates of nonrecognized high schools may be admitted to the University by an entrance examination. Persons who have not completed high school may be considered for admission by completing the GED test provided they meet the requirements to write this examination.

All admissions granted students while in high school are subject to the completion of high school work and graduation from high school.

Students entering the University as freshmen are admitted to the schools or colleges within the University that offer the academic programs they indicate they plan to pursue. Students who are undecided as to the course of study they want to follow are admitted to the Undergraduate Academic Services unit in pre-major advisement or to selected other units with an undecided major.

Students who are admitted as beginning freshmen but enroll at another college or university prior to their enrollment at Southern Illinois University at Carbondale will automatically void their admission as beginning freshmen. It will be necessary for the student whose admission is voided to reapply for admission and be considered for admission accordingly.

While beginning freshmen are considered for admission on the basis of a combination of class rank and test scores, it is strongly recommended that students



complete the following high school subject patterns: four years of English (emphasizing written and oral communications and literature), three years of social studies (emphasizing history and government), three years of mathematics (introductory through advanced algebra, geometry, trigonometry, or fundamentals of computer programming), three years of the sciences (laboratory sciences), and two years of electives in foreign language, music, or art.

#### ADMISSION OF FRESHMEN TO BACCALAUREATE PROGRAMS

High school graduates who: (1) have an entrance examination score at the fiftieth percentile or higher or (2) have an entrance examination score at the thirty-third percentile or higher and rank in the upper half of their graduating class based on class rank are eligible for admission to any semester. Those students who qualify for admission to any semester will be considered for admission after completion of their junior year in high school.

High school graduates who do not meet the admission requirements above are urged to submit applications for admission to the University. If they demonstrate potential for academic success, they may be considered for admission through the Special Admissions Program. Students admitted through the Special Admissions Program are admitted in good standing. They are required to participate in academic assistance activities.

High school graduates who do not meet the requirements above but who rank above the thirty-third percentile by either class rank or entrance examination scores are admissible for the spring semester on a conditional basis. The conditions are (1) that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work and (2) that the student is admitted on probation and must meet the scholastic requirements for probationary students. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the school or college. Ordinarily, the student will not be considered for readmission for at least one academic year. Students who have been admitted or who qualify to be admitted on condition may earn transfer credit at another college or university prior to their spring semester matriculation, provided they earn a *C* average or above for any transfer work completed. If they do not earn a *C* average for transfer work, their admission will be withdrawn. Students who present twenty-six semester hours or more of transfer work should refer to the section of the bulletin which explains admission of transfer students.

Students who are less than twenty-one years of age and have completed satisfactorily the General Educational Development Test can qualify for admission by achieving an entrance examination score above the thirty-third percentile.

#### ADMISSION OF FRESHMEN TO ASSOCIATE DEGREE PROGRAMS

High school graduates who rank in the upper two-thirds of their graduating classes based upon class rank or by score on the University entrance examinations are eligible for admission to any semester. Students who have passed the General Educational Development Test are also eligible for admission for any semester. Graduates whose rank is lower third by either class rank or test scores are admissible to the spring semester on a conditional basis. The conditions are: (1) that the student must enroll for a minimum of twelve semester hours and complete at least ten semester hours of graded work and (2) that the student is admitted on probation and must meet the scholastic requirements for probationary students. Students who fail to meet either condition may not continue in attendance subsequent semesters unless approved for readmission by the dean of the School of Technical Careers. Ordinarily, the student will not be considered for readmission for at least one academic year.

Students who did not meet the University baccalaureate admission requirements to enter as freshmen from high school during the regular academic year

and elect to enter an associate degree program in the School of Technical Careers will not be considered for admission to a four-year program until they have completed 26 semester hours and have an overall *C* average.

Because a number of courses are offered on a sequential basis in the School of Technical Careers, some programs begin only in the fall. Applicants should review the admission application guide to determine when selected programs will allow students to enter the School of Technical Careers.

### **Admission of Transfer Students**

A student who has attended another college, university, or postsecondary institution is required to submit an official transcript from each institution attended. All transcripts become the official property of Southern Illinois University at Carbondale and will not be returned nor issued to another institution.

Students applying for admission to the University with previous post secondary education will be considered for admission as follows:

1. A student who has been enrolled in an institution which is accredited by one of the regional accrediting associations or an institution in candidacy status will be considered for admission on the basis of the regular transfer admission standards, or

2. A student who has attended an institution which is not accredited by or in candidacy status with one of the regional accrediting associations will be considered for admission on the basis of the regular transfer admission standards if the credit from that institution is accepted in a similar manner by the reporting institution in that state, or

3. A student who has completed a nonbaccalaureate two-year or equivalent terminal program with a *C* average in an institution which is not accredited by or in candidacy status with one of the regional accrediting associations will be admitted if the institution is one recognized by NATTS, AMA, ABET, or similar accrediting bodies recognized by the National Commission on Accrediting or the United States Office of Education. Students admitted from such institutions should not expect to receive credit at Southern Illinois University at Carbondale except in programs which offer occupational credit.

Even though a student has attended another college or university, the student is required to have graduated from a recognized high school or completed satisfactorily the General Educational Development Test.

All grades earned in transferrable courses and in courses with a grade point value are used to calculate the grade point averages used for admission purposes. This includes grades earned in repeated courses, except those completed prior to the 1971 summer session. Transfer work is calculated according to Southern Illinois University regulations rather than those of institutions students have previously attended.

Transfer students who have been suspended for any reason other than academic failure must be cleared by the Student Life Office before admission will be granted by the director of admissions.

Transfer students will be admitted directly to the school or college in which their major fields of study are offered. Students who are undecided about their major fields of study will be admitted to the General Academic Programs unit in pre-major advisement or to selected other units with an undecided major.

Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their matriculation if they plan to transfer without interruption. Students who have completed less than one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who are enrolled in a collegiate program for the first time and wish to transfer upon completion of their first term may do so if they meet the University's admission requirements for beginning freshmen. Admission may also be granted one year in advance for selected programs to stu-



dents who are in their first term of a collegiate program provided they qualify for admission as beginning freshmen. Admission granted to a student on partial or incomplete records is granted with the condition that the student will have an overall *C* average and be eligible to continue at the last school attended at the time of matriculation. Students whose final transcripts indicate a grade point average or scholastic standing less than that required for unconditional admission will have their initial admission withdrawn.

#### ADMISSION OF TRANSFER STUDENTS TO BACCALAUREATE PROGRAMS

Students who have an overall *C* average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution of attendance will be eligible for admission to any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as a transfer student for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years, (2) military experience, (3) work experience, and (4) previous academic performance.

Students who have graduated with an associate degree in a baccalaureate-oriented program from an accredited Illinois two-year institution may enter Southern Illinois University at Carbondale in good academic standing any semester provided they have not taken additional college work since their graduation. If they have, their admission will be considered on the basis of their conformity to the University's regular transfer admission standards.

Students who are transferring from programs which are not baccalaureate-oriented should refer to the section titled evaluation of transfer credit for additional information.

#### ADMISSION OF TRANSFER STUDENTS TO ASSOCIATE DEGREE PROGRAMS

Students who have an overall *C* average, 2.0 on a 4.0 scale (all institutions), and are eligible to continue their enrollment at the last institution attended are eligible to be considered for admission for any semester. If a student is seeking admission with fewer than twenty-six semester hours, the applicant will be required to meet the admission requirements of a beginning freshman as well as transfer students for unconditional acceptance.

Students who do not meet the University's transfer admission requirements will have their applications reviewed thoroughly. Students who have been placed on scholastic probation or academic suspension from another college or university will be considered for admission by the Office of Admissions and Records only if an interruption of education has occurred and there is tangible evidence that additional education can be completed successfully. Tangible evidence might include: (1) an interruption of schooling for one or more years, (2) military experience, (3) work experience, or (4) previous academic performance.

A student who is admitted to an associate degree program as a transfer student and then decides at a later date to enter a four-year program must meet the University's baccalaureate admission requirements at the time of transfer.

New students may be admitted only for the fall semester to select majors in the School of Technical Careers. Please consult the admission application guide to determine when new students can be admitted to two-year programs in the School of Technical Careers.



## **Admission of International Students**

In general, international students must meet the same academic standards for admission as those required of native students. As there is considerable variation between educational systems throughout the world, precise comparative standards are not always available. Therefore, international students are considered for admission on the basis of their former academic work, English proficiency, and evidence of adequate financial resources.

In addition to submitting copies of secondary school records and, when applicable, college transcripts, international students must also submit scores from TOEFL examination (Test of English as a Foreign Language). TOEFL scores are required of all international students who (1) have completed their secondary education in a country where English is not the native language, (2) have completed fewer than two years of study in a United States high school, (3) have completed fewer than two years (60 semester hours) of collegiate training in an accredited United States college or university. Students who have completed their secondary education in a country where English is the native language are required to submit scores from either the American College Test or the Scholastic Aptitude Test.

Students who have acquired immigrant status are also required to demonstrate English proficiency. English proficiency can be demonstrated by successful completion of the TOEFL examination or a special English examination administered by the Center for English as a Second Language. Immigrants who have completed at least two years of study in a United States high school, have earned sixty semester hours in a United States college or university, or have completed their secondary education in a country in which English is the native language are not required to submit TOEFL scores or write a special English examination. They may, however, be required to submit university entrance examination scores if they are seeking admission as beginning freshmen or transfer students with fewer than twenty-six semester hours.

International students whose secondary school and college records are acceptable for admission purposes must also receive high enough TOEFL scores for unconditional admission. Students with a TOEFL score of 525 or higher will be granted unconditional admission. Applicants whose TOEFL score is less than 525 will be admitted contingent upon completion of an English re-test administered by the Center for English as a Second Language. Students who fail to submit TOEFL scores, or who do not submit acceptable TOEFL scores, will be required to attend courses at the Center for English as a Second Language.

An administrative service fee of \$100 per student per semester including summer session will be charged to sponsoring agencies which enroll international students.

International students interested in making application to Southern Illinois University at Carbondale should address their inquiries to the Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

This school is authorized under Federal law to enroll nonimmigrant alien students.

## **Admission of Former Students**

Students who have attended another institution since their previous enrollment at Southern Illinois University at Carbondale must submit an official transcript from that institution before they can be considered for readmission. In addition, a student who has a financial obligation to the University must clear this hold before being considered for readmission. Students who were suspended for scholastic or disciplinary reasons during their previous enrollment at the University must be approved for readmission by the appropriate academic or student services dean before they can be readmitted to the University. Students with less than a C aver-

age must be approved for readmission by an academic dean if they are entering an academic unit other than the one in which they were previously enrolled.

It is advisable for former students to initiate the readmission process with the Office of Admissions and Records early so that all inquiries may be answered and the applicants can find time to complete any special requirements that may be imposed upon them. (See Scholastic Probation and Suspension System elsewhere in this catalog for further information.)

### **Admission of Special Categories of Students**

Several types of students are given special consideration when seeking admission to the University. These are described below:

#### **ADMISSION OF VETERANS**

Veterans seeking admission or readmission to the University are admitted in good standing regardless of their previous academic record provided that either (a) no additional education has been attempted or (b) such additional education has been of C quality or better. Prior academic work of an admitted reentering veteran is counted together with all subsequent work after admission. Veterans are required to submit all required admission credentials before their applications can be processed. This includes high school transcripts or GED scores and official transcripts from each college or university previously attended.

Military personnel on active duty in any branch of the United States military are expected to meet the same admission requirements as a veteran. Students in military programs are admitted directly into the degree program in which they are enrolling. Military program students whose credentials are not submitted by the end of the second semester will not be allowed to enroll further until all credentials are received.

#### **EARLY ADMISSION POLICY FOR FRESHMEN**

Exceptionally capable high school students who have completed their freshman year in high school, are recommended in writing by their high school principals, and are approved for admission by the University director of admissions will be permitted to enroll in University courses subject to departmental approval. Students approved for admission to this program will be permitted to enroll in University courses during the summer and concurrently with their high school work during the regular school year. Sophomores and juniors may register for one course and seniors may enroll for one and possibly two courses depending on their high school schedules.

The concurrent enrollment program is an acceleration and enrichment experience for academically capable students. To participate in the program, students must have achieved an overall B average (3.0 on a 4.0 scale) in high school.

The University courses to be taken in this program should be in subject areas in which a high school does not offer courses or in subject areas in which the student has completed all of the courses the high school can offer. When a high school principal recommends a specific course or courses to be taken, an academic adviser will assist the student in arranging such a schedule.

It is assumed that high school principals who recommend students for this program will consider a student's aptitude for completing college work and a student's ability to adjust socially to the campus community.

#### **ADMISSION OF ADULTS AS UNCLASSIFIED STUDENTS**

Adults who have graduated from high school or who have passed the GED tests can be considered for admission as unclassified students. Students in this special category are non-degree students and are not required to submit all records normally required for admission to degree programs.



Non-military personnel whose admission credentials are incomplete are admitted to off-campus courses or degree programs as unclassified students. Unclassified students taking courses in off-campus degree programs have one semester to submit all of their admission records. Future registrations will not be allowed for students who are participating in off-campus degree programs and have incomplete admission records. Students who are taking off-campus courses in which a degree program is not offered may take twenty-six semester hours before they are required to submit all of their academic records. Those students whose records remain incomplete upon completion of twenty-six semester hours will not be allowed to register for any additional courses.

Records submitted by students participating in off-campus courses and degree programs will be reviewed in accordance with current University admission policies. Students who have completed fewer than twelve semester hours at the University and did not meet the current admission requirements will have their academic status changed to scholastic probation.

#### ADMISSION OF TRANSIENT STUDENTS

Students who are attending other collegiate institutions and want to enroll for one semester must submit an application for admission. They must submit also documentation indicating they have an overall C average and are eligible to continue their enrollment at the last institution attended. This can be a student's most recent transcript or grade report. Transient students who request to continue their enrollment for subsequent semesters must submit all documents required for admission and meet the University's current admission policies.

#### **Applying for Admission**

High school students are urged to initiate the admission process during the seventh semester in high school. Transfer students who have completed a minimum of one year of work can be considered for admission one year in advance of their date of matriculation if they plan to transfer without interruption. Transfer students who have not completed one year of study may initiate the admission process after the completion of one semester or one quarter of work. Students who delay their admission processing until near the start of the semester which they wish to enter may find that they are unable to do so because all the necessary documents required before the admission decision will be made have not been received. It is particularly important for transfer students to initiate the admission application process well before the starting date of the semester. Otherwise, delay in getting started, undesirable class schedules, or inability to attend the desired semester may result. Documents required in the admission process are listed below.

The admission process is initiated by writing to Office of Admissions and Records, Southern Illinois University at Carbondale, Carbondale, Illinois 62901, requesting admission materials. The materials that are sent include the application and related forms that need to be completed along with procedural instructions. Information is also included relative to housing and financial assistance.

#### DOCUMENTS REQUIRED FOR ADMISSION

Among the items required by the University before an admission decision is made are the following:

1. The application for admission.
2. Transcripts of previous educational experience. High school students should submit two copies of the high school transcript or a copy of the General Educational Development Test scores. Transfer students must submit to the Office of Admissions and Records an official transcript from each institution previously attended. In addition, transfer students who have earned fewer than 26 semester hours (39 quarter hours) of transfer work must provide the University a copy of



their high school transcript or General Educational Development Test scores. Transfer students who have attended an institution whose credit is not acceptable for admission must also submit copies of their high school transcripts and ACT scores.

3. University entrance examination scores. All students who are less than twenty-one years of age applying for admission directly from high school and all transfer students who have completed fewer than 26 semester hours (39 quarter hours) must have their official ACT scores sent to the University from the American College Testing Program, Box 451, Iowa City, Iowa 52240.

Applications for housing and financial assistance are separate from the admission process and directions relating thereto are contained in the brochures on these subjects which the students receive as part of the admissions process.

## Transfer Credit

Transfer credit for students admitted to the university is evaluated for acceptance toward University and General Education requirements by the Office of Admissions and Records after the admission decision has been made. All credit from a regionally accredited institution, and those in candidacy status, or from an institution that has its credit accepted by the reporting institution in the state is accepted at the time of admission. Courses which are remedial or developmental will not be accepted for transfer. The Office of Admissions and Records will determine the acceptance of credit and its applicability toward General Education requirements. Although transfer credit from baccalaureate and non-baccalaureate programs may be considered in the admissions process, the acceptance of such credit toward specific programs requirements will be made by the department or agency directing the program.

All credit which is accepted for transfer and which is not applied to General Education requirements or to a specific program will be considered elective credit. The decision will be made depending upon the program the student has completed and the program entered at the University. A student should not expect to receive credit if the transfer work was taken at a school which is neither regionally accredited or whose credit is not accepted by the reporting institution in the state.

Completion of an associate degree in a baccalaureate-oriented program in an accredited Illinois two-year institution provides that the student will: (a) be accepted with junior standing and (b) be considered to have completed the General Education requirements. Associate degrees earned at other than Illinois two-year institutions will be reviewed by the Office of Admissions and Records. If the degree is determined to be baccalaureate-oriented, the same benefits will be extended to those graduates. Credit from an accredited two-year institution is limited only by the provision that students must earn at least 60 semester hours of work at Southern Illinois University at Carbondale or at any other approved four-year institution and must complete the residence requirements for a degree from the University.

Further information on the application of transfer work toward satisfying General Education and graduation requirements may be found in Chapter 3.

## Orientation, Advisement, Registration

Through a carefully designed system of orientation, academic advisement, and registration the University attempts to assure entering students an efficient and effective introduction to the University prior to the time they start class attendance. A more extensive program is provided for those students entering during the fall semester while abbreviated activities are in operation for the other semesters.

The University conducts an advance registration system. All continuing and new students have the opportunity and are expected to complete advisement and registration for a semester before its actual start.

During the summer several weeks are set aside for new freshman and transfer students admitted for fall semester to complete advisement and registration. Students are invited to have their parents accompany them so they too may obtain a better understanding of the University than might otherwise be the case. At the start of the fall semester new students participate in orientation activities during which time they receive introduction to university life.

Starting in May and extending through June the University notifies new students admitted for the fall semester when they are to come to the campus for advisement and registration. Through this process only the number of students that can be efficiently handled are involved each day. Students who cannot come to the campus during the summer or who delay applying for admission beyond the advance registration period may register at the start of the fall semester but are required to come to campus a few days before those who have registered during the summer period.

Similar procedures are followed at the start of the other semesters. Admitted students are kept informed of orientation, advisement, registration procedures, and the times when they occur by the Office of Admissions and Records in cooperation with the Student Activities Office.

### **Academic Advisement**

Academic advisement is administered by the academic units. Each unit employs a selected group of trained advisers. They operate under the supervision of a chief adviser who is responsible to the dean of the academic unit.

The University accepts the importance of the academic advisement function. Insistence on receipt of transcripts and ACT scores prior to admission serves not only to determine admission but later provides suitable educational information to the advisers upon which decisions can be made relative to the proper courses to advise the student to take. On the basis of this information the advisers can make intelligent decision relative to students who should receive advanced standing in courses or who should be urged to take proficiency examinations in courses about which they appear to be already well informed.

### **Registration**

Registration for any session of the University is contingent upon being eligible for registration. Thus advance registrations, including the payment of tuition and fees, are considered to be invalid if the students are later declared to be ineligible to register due to scholastic reasons. Students may also be considered ineligible to register because of financial or disciplinary reasons if this is certified to the Office of Admissions and Records by the appropriate University office.

Detailed information about the dates and procedures for advisement and registration appears in each semester's Schedule of Classes, which is available from the Office of Admissions and Records.

Students should be familiar with the following general points about registration.

1. Registration for a semester is conducted under a registration calendar consisting of three distinct periods. Advance registration occurs during the last eight weeks of the preceding term, final registration immediately preceding the start of classes and late registration during the first week of classes.

2. Currently enrolled students are expected to register during the advance registration period. New freshmen, transfer, and re-entry students are provided an opportunity to advance register on specific new student registration days during the advance registration periods.



3. Students who are unable to advance register may register prior to the beginning of classes during the final registration period.

4. Students initiate registration with the advisement center of their colleges or schools.

5. The course request forms and program change forms must be processed through the Registration Center in the Office of Admissions and Records.

6. Mere attendance does not constitute registration in a class, nor will attendance in a class for which a student is not registered be a basis for asking that a program change be approved permitting registration in that class. Students should complete the registration process before classes begin.

7. Enrollment changes to classes can only be made through the processing of an official program change form.

8. Tuition and fees are payable in advance or by installments and no student shall be enrolled in any educational unit until at least the first installment of tuition and fees have been paid or officially deferred.

9. Students may not drop a course merely by stopping attendance. (See the Withdrawal from Courses and from the University section of this chapter.)

10. There is a terminal date near the end of each semester or session after which withdrawal from the University cannot be processed prior to the assignment of grades. As a result withdrawal will be allowed only in unusual circumstances. This date is usually one week before final examinations start. The specific date appears in each appropriate Schedule of Classes.

## Tuition and Fees and Other Financial Information

It is difficult to indicate the specific cost of attending the University because of the differences in personal spending habits. However, the following information may be helpful.

### Tuition and Fees

Tuition and fees charged students are established by the Board of Trustees and are subject to change whenever conditions necessitate. All assessments are on a per-hour basis, with 12 hours considered full time. Students will be assessed the following tuition and fees each term:

#### ON-CAMPUS UNDERGRADUATE TUITION AND FEE SCHEDULES

##### Illinois Residents

##### Non-Illinois Residents

Semester Hours Enrolled	Tuition	Student Fees	Total	Tuition	Student Fees	Total
1	\$ 44.55	\$104.06	\$148.61	\$ 133.65	\$104.06	\$ 237.71
2	89.10	118.86	207.96	267.30	118.86	386.16
3	133.65	133.68	267.33	400.95	133.68	534.63
4	178.20	148.49	326.69	534.60	148.49	683.09
5	222.75	163.28	386.03	668.25	163.28	831.53
6	267.30	178.11	445.41	801.90	178.11	980.01
7	311.85	192.92	504.77	935.55	192.92	1,128.47
8	356.40	207.71	564.11	1,069.20	207.71	1,276.91
9	400.95	222.52	623.47	1,202.85	222.52	1,425.37
10	445.50	237.34	682.84	1,336.50	237.34	1,573.84
11	490.05	252.14	742.19	1,470.15	252.14	1,722.29
12 or more	534.60	266.95	801.55	1,603.80	266.95	1,870.75



## STUDENT FEE DISTRIBUTION

Semester Hours Enrolled	STS Grant (1)	Student Attorney (2)	Student Center (3)	Student Activity (4)	REC (5)	Athletic (6)	Medical (7)	RBF (8)
1	\$2.25	\$2.00	\$ 3.31	\$ .71	\$ 2.67	\$ 3.17	\$85.00	\$ 4.95
2	2.25	2.00	6.63	1.42	5.33	6.33	85.00	9.90
3	2.25	2.00	9.94	2.14	8.00	9.50	85.00	14.85
4	2.25	2.00	13.25	2.85	10.67	12.67	85.00	19.80
5	2.25	2.00	16.56	3.56	13.33	15.83	85.00	24.75
6	2.25	2.00	19.88	4.28	16.00	19.00	85.00	29.70
7	2.25	2.00	23.19	4.99	18.67	22.17	85.00	34.65
8	2.25	2.00	26.50	5.70	21.33	25.33	85.00	39.60
9	2.25	2.00	29.81	6.41	24.00	28.50	85.00	44.55
10	2.25	2.00	33.13	7.12	26.67	31.67	85.00	49.50
11	2.25	2.00	36.44	7.84	29.33	34.83	85.00	54.45
12 or more	2.25	2.00	39.75	8.55	32.00	38.00	85.00	59.40

The fees which have been established by the Board of Trustees are payable by all students unless they are specifically exempted by the Board of Trustees. All fees are considered to be institutional in nature and require payment regardless of whether or not the student receives direct benefits or is in a location which permits access to such benefits.

## STUDENT FEES INCLUDE

1. The Student-to-Student (STS) Grant Program Fee provides funding of a student grant program. The fee is payable by undergraduate students only. Undergraduate students who do not wish to participate in the program may seek a credit of the fee by contacting the Office of Admissions and Records within ten days of the date of payment of fees.

2. The Student Attorney Fee provides funding for the student attorney program.

3. The Student Center Fee provides funding for operation of the Student Center.

4. The Student Activity Fee provides funding for student organizations and activities on campus.

5. The Student Recreation Fund (REC) Fee provides funding for construction and operation of physical facilities for student recreation and intramural programs.

6. The Athletic Fund Fee provides partial funding of the University's intercollegiate program for men and women.

7. The Student Medical Benefit (SMB) Fee provides funding for a comprehensive health program. The \$85 medical benefits fee is divided with \$54.50 for the student health program fee and \$30.50 for the student medical insurance fee. Students who have comparable coverage may be eligible for a credit of all or part of the fees. A credit must be applied for within the first three weeks of the semester. Additional information may be found in Chapter 5.

8. The Revenue Bond Fee (RBF) replaces funds which were previously obtained from tuition payments and used to underwrite the funded debt operations of the Student Center and University Housing.

## ADDITIONAL FEE INFORMATION

1. Students are urged to refer to the *Schedule of Classes* for more specific fee information.

2. A late registration fee of \$15.00 shall be assessed to all students taking on-campus classes who register after the designated registration period. This fee shall be non-refundable and non-waiverable, except when it is clearly shown that the late registration was caused by faculty or administrative action. Off-campus classes and registration in courses numbered 599, 600, or 601 shall be exempt from the fee.

3. Graduate, medical, and law students are not required to pay the student-to-student grant program fee so their student fees will be \$2.25 less than the amount listed in the appropriate column above.

4. Permanent full-time or permanent part-time employees may be eligible for waiver of tuition and waiver of a portion of the student fees. Approval by the department head and the director of the Personnel Office must be given prior to enrolling for courses. Employees who are approved are required to pay the Student Center, and Student-to-Student Grant fees as listed in the table above.

5. Other charges which students may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking a course involving use of materials, as distinct from equipment, will ordinarily pay for such materials.

6. Students registering for courses on an audit basis pay the same tuition and fees as though they were registering for the courses for credit.

7. Out-of-state students will find the official University regulations governing determination of residency status for assessment of tuition later in Chapter 2.

8. Medical students are not required to pay Student-to-Student Grant Program Fee. In addition, medical students in Springfield are not required to pay Student Center, Athletic Fee, Student Recreation or the Revenue Bond Fee and pay \$40.00 of the Student Medical Benefit Fee.

9. Students enrolled in public service courses pay only tuition and \$3.00 per hour in fees. The fees are divided equally between Student Center and Student Medical Benefit Fees. Students who combine enrollment in public service courses and regular on-campus courses pay tuition and fees for the combined total of hours enrolled.

10. Students enrolling in off-campus non-contractual courses pay tuition only. Students who combine enrollment in on- and off-campus course pay tuition only for hours off campus plus tuition and fees for hours enrolled on campus.

11. Tuition and program delivery charges for students enrolled in off-campus programs for the military are established in accordance with Board of Trustees policies relating to such charges for Southern Illinois University at Carbondale cost recovery programs and are not affected by the residency status of the student.

12. An administrative service fee of \$100 per student per semester including summer session will be charged to sponsoring agencies which enroll international students.

13. In addition to the above fees, there is a graduation fee. For further information contact the Office of Admissions and Records.

#### PAYMENT AND REFUNDING OF TUITION AND FEES

Tuition and fees are payable each semester during the academic year. Students will receive monthly statements of account through the University billing/receivable system. The statement lists all tuition and fees assessed, charges for University housing, charges for various other services, credits applied to the student's account from financial aid sources and cash payments. It shows the balance of these charges and credits as an amount owed by the student or an amount owed to the student. The statement also will show amounts which are past due, amounts which are currently due during the billing period, and amounts which will be due in the future. Payment may be made either by mail or in person at the Bursar's Office by the deadline date in accordance with instructions printed on the statement of account.



The top portion of the statement should accompany the payment. The bottom portion of the statement should be retained by students for their records. Prepayments of tuition and fees prior to detailed charges are not encouraged; however, early payments will be generally credited to the student's account and will be applied to charges made to that account.

The statements will be mailed to the student's mailing address after the fifteenth of each month. It is the student's responsibility to maintain an accurate mailing address to which a statement of account can be mailed. Failure to receive a bill does not relieve students of the responsibility for prompt payment of currently due amounts. See additional information under the heading Mailing and Home Addresses.

No student shall be enrolled until the student has either paid tuition and fees in full or has paid the initial installment or has had a cancellation waiver. Other amounts due from students at the time the initial installment payment of tuition/fees is due must also be paid or students will not be allowed to enroll. Students who fail to pay the first installment and all other past due charges or who fail to obtain a waiver of cancellation will have their registrations cancelled and will be denied privileges available to a student regularly enrolled in the University. Students with cancelled registrations who want to be enrolled at the University must reregister. They will be subject to payment in full or the installment plan in effect at the time of their reregistration. They may also be subject to a late registration fee.

A service charge of one and one-half percent per month will be assessed on all accounts which are delinquent. To avoid the service charge, students must pay the minimum amount due printed on the statement prior to the next billing date. More detailed information is in the *Schedule of Classes* published each semester.

Following the end of each semester, students not registered for the next semester who have delinquent account balances will receive a series of itemized statements requesting payment. If payments, or arrangements, are not made on a timely basis, the account may be placed with a collection agency with a collection fee added to the account. Should it be necessary for an outside agency to effect a collection, reasonable collection costs shall be  $33\frac{1}{3}\%$  of such amount and shall be paid by the debtor. If the University obtains judgment from a court of competent jurisdiction, the debtor shall be liable for the collection agency fee as well as reasonable costs and attorney's fees.

Students who process a program change which places them in a different tuition and fee category than the one for which they originally registered will be billed additional tuition and fees when appropriate. If the change places them in a smaller tuition and fee category and if they processed the program change within the first three weeks of the semester, they will receive a refund provided their account carries no other charges.

Students who officially withdraw from school by the specific withdrawal deadline will receive a credit to their university account. Students with credit balances in their account will receive a refund by mail approximately three weeks from the date of withdrawal.

**Installment Payment Plans.** There are several installment payment plans and eligibility will depend on where students attend class and when they register. The University reserves the right to alter the payment plans offered and in some plans to require prepayment of part or of all a student's charges prior to registration. The basic criterion for eligibility in installment payments is that the student must be attending classes on the Carbondale campus or School of Medicine classes in Springfield. Payment plans for students attending classes on the Carbondale campus or School of Medicine classes allow tuition and fees to be paid in up to four installments for fall or spring semesters and up to two installments for summer term, depending on when students process their registrations. Students who op-



tion for installment payment need only to pay the minimum amount due indicated on the May, July, or December statement of account by the stated deadline. There is no installment payment plan for students who only attend classes off-campus. A one and one-half percent service charge will be assessed on all minimum amounts not paid prior to the next billing. Students in military contractual programs are not subject to a service charge.

#### MAILING AND HOME ADDRESSES

The University maintains both mailing and a home address for students. Accurate addresses are very important for students to ensure receipt of timely mail from the University.

The mailing address is used by the University to address the monthly billing and receivable system statement of account, refunds, and other correspondence.

The home address maintained by the University is the permanent home address of students or the address at which students will promptly receive mail when they are absent from Carbondale. Foreign students should change the home address of their native country to the United States address to which their mail may be sent whenever classes are not in session. Married students should change their home address to the same address which they use as their mailing address.

Grade reports and advanced registered student schedules are mailed to the students home address in August, December, and May. Also December statements of account are mailed to the students' home address.

#### DEADLINES FOR WITHDRAWING FROM SCHOOL TO RECEIVE A REFUND

If Classes Meet for	Deadline for Withdrawal to Receive Refund
13-16 weeks	3rd week
9-12 weeks	2nd week
7 or 8 weeks	2nd week
4-6 weeks	1st week
2 or 3 weeks	1st week
less than 2 weeks	2nd day

No refunding of tuition and fees is made for a withdrawal occurring after the deadlines, except as described in the next paragraph.

Special consideration is extended to individuals who leave school for extended military service (6 months or longer). Students will be refunded full tuition and fees paid if they enter military service during the first five weeks of school. If students withdraw during the sixth through tenth weeks of school, they will be refunded half of the paid tuition and fees, and they will receive one-half credit without letter grades for the courses in which they were receiving a passing grade at the time of withdrawal. When the withdrawal occurs after the tenth week, students will receive no refund, but will receive both grades and credit hours for the courses in which they are passing. In all instances, a copy of the military orders or a letter from the commanding officer is required for verification of impending military service. To be eligible for these benefits students must remain in school to within ten days of their military reporting date.

#### DEFERMENT OF TUITION AND FEES

When a student's financial aid has been delayed, or the funds which a student anticipates using to pay tuition and fees are unavailable by the regular due date for tuition and fee payment, the student may apply for an extension of the payment deadline date through a process called waiver of cancellation. Cancellation waivers are available to students who can demonstrate that they meet minimal eligibility criteria and can provide written verification of an ability to pay. Infor-

mation on cancellation waivers is publicized each semester in the Office of Admissions and Records, the Bursar’s Office, the Student Work and Financial Assistance Office, and the *Daily Egyptian*. Eligibility criteria and procedural guidelines may vary from term to term and year to year. Students are advised to seek out the accurate information rather than assume they qualify.

Students applying for a cancellation waiver must first complete registration. Written verification from the source of funds to be used to pay tuition and fees must be presented in person to the Student Work and Financial Assistance Office for those students with approved scholarships, grants, or loans, or any combination of these. Instances of exceptional need will be referred to a financial aid officer when the source of funds is other than those identified above. Additional information on cancellation waivers is available in the Student Work and Financial Assistance Office. Phone or mail requests for deferments will not be accepted.

## Grading, Scholastic Regulations, and Credit

### Grading System

GRADE SYMBOL	DEFINITION	GRADE POINTS PER HOUR
A,	Excellent . . . . .	4
B,	Good . . . . .	3
C,	Satisfactory . . . . .	2
D,	Poor . . . . .	1
F,	Failure . . . . .	0
P,	Pass. Used only in Pass/Fail system. See Grading System Explanation below.	
PR,	Work in Progress. See Grading System Explanation below.	
W,	Authorized withdrawal. See Grading System Explanation below.	
INC,	Incomplete. See Grading System Explanation below.	
AU,	Audit. No grade or credit earned. See Grading System Explanation below.	

#### GRADING SYSTEM EXPLANATION

The grades of A, B, C, D, and F, are included in determining student grade point averages.

An *INC* is assigned when, for reasons beyond their control, students *engaged in passing work* are unable to complete all class assignments. An *INC* must be changed to a completed grade within a time period designated by the instructor but not to exceed one year from the close of the term in which the course was taken, *or graduation*, whichever occurs first. Should the student fail to complete the course within the time period designated, not to exceed one year, or graduation, whichever occurs first, the incomplete will be converted to a grade of *F* and the grade will be computed in the student’s grade point average. Students should not reregister for courses in which an *INC* has been assigned with the intent of changing the *INC* grade. Reregistration will not prevent the *INC* from being changed to an *F*.

For *mandatory* Pass/Fail courses, the grades of *P*, when the student’s work is satisfactory, or *F*, when the student’s work is unsatisfactory, may be recorded. For a *P*, the hours apply toward graduation but the grade does not affect the grade point average. For an *F*, the hours do not apply toward graduation but the grade does count in the grade point average. If a student receives an *INC* in a Pass/Fail course, the same regulations apply for completion of the work as apply for all other grades of *INC*, as explained above.

Students enrolling for an *Audit* must designate their intent to enroll on an *Audit* basis at the time of registration or prior to the end of the third week of a



sixteen-week semester and prior to the end of the second week of an eight-week summer session. An equivalent prorated amount of time would be allowed for courses of shorter duration. Students registering for short courses must register for *Audit* prior to the beginning of those classes. Students registering for a course on an *Audit* basis receive no letter grade and no credit. Auditors' Course Request Forms must be marked accordingly, and they pay the same fees as though they were registering for credit. They are expected to attend regularly and to determine from the instructor the amount of work expected of them. If auditing students do not attend regularly, the instructor may determine that the student should not have the audited course placed on the academic record maintained in the Office of Admissions and Records.

*PR* is an authorized grade for specifically approved undergraduate courses. It is used for required general education courses which have been designated as ones in which students must receive a grade of *C* or better. The grade is given only to students who regularly attend class and attempt to complete the required work. The grade is to be used only once per student for any given course. The course provides additional instruction for those students not making adequate progress. Students who receive a *PR* grade must reregister for the course within a time period not to exceed a year from the end of the semester in which the course is taken. The grade earned in the course for which the student reregisters will be included in the grade point average. Failure to complete the course within the year will result in the *PR* automatically becoming an *F*. The *F* will be included in grade point computation.

#### WITHDRAWAL FROM COURSES AND FROM THE UNIVERSITY

Students who officially register for a session may not withdraw merely by the stopping of attendance. They need to process an official withdrawal form. Outlined below are the procedures to be followed by students when withdrawing from courses and when withdrawing from the University (all courses for which registered).

If Classes Meet for	Deadline for Withdrawal to Receive Refund	Deadline to Withdraw*
13-16 weeks	3rd week	8th week
9-12 weeks	2nd week	6th week
7 or 8 weeks	2nd week	4th week
4-6 weeks	1st week	3rd week
2 or 3 weeks	1st week	1st week
less than 2 weeks	2nd day	2nd day

\*In each instance, one day beyond the time listed will be allowed for processing of the withdrawal. Also, refer to the section on withdrawal from the University for a special provision concerning withdrawal from school beyond the 8th week.

**Course Withdrawals.** Students officially withdraw from courses through the program change process. This process starts with the academic adviser and is completed at the Registration Center. Official course withdrawals during the first three weeks of the semester result in no entry being made on the student's record. Periods prior to withdrawal deadlines for shorter sessions are correspondingly shorter. Unless a student has processed an authorized withdrawal from a course by the deadline in the schedule above, the student will not be allowed to withdraw from the course. It is the student's responsibility to ensure that the withdrawal process is officially completed. It is probable that a student who does not withdraw by the deadlines, but stops attending during the second half of the semester, will receive a grade of *F*.



*Withdrawal From the University.* Students registered for academic work must obtain a withdrawal if they contemplate leaving the University. The only exception is the student registered for summer school who decides not to attend but will return fall semester. If the student has not made any tuition and fees payment for summer, the registration will be cancelled. If the student has paid for tuition and fees, a withdrawal must be processed. If a summer housing contract has been purchased, the student must contact University Housing to cancel the contract.

Withdrawal from the University is a serious decision which, in many cases, affects financial assistance status, housing contracts, and academic record. A student may, with authorization from the Student Life Office and the academic dean, obtain a withdrawal. There are, however, restrictions on a withdrawal. A withdrawal will not be issued beyond the eighth week of the semester unless the reasons for the withdrawal are beyond the student's control and verified in writing. Warning: if a student obtains a withdrawal after eight weeks and is receiving financial assistance, the student may be in violation of the Satisfactory Progress for Financial Assistance policy since no academic credit will be earned for the semester. The table above provides the deadline dates for withdrawal.

Students receiving a withdrawal within the first three weeks will, under normal circumstances, receive a refund of all tuition and fees paid by the student or family. All financial assistance funds will be returned to their original sources if the student withdraws during the first three weeks.

Students receiving a withdrawal between week three and week eight will receive no refund and will not receive grades. Students receiving financial assistance, however, will be required to repay all funds since they did not attend at least one half of the semester.

Withdrawal from the University does not relieve the student from housing contract obligations. Each student must contact University Housing and resolve the contract issue with that office.

All students seeking a withdrawal must contact the Student Life Office in person or by mail. The withdrawal, if granted, will be dated at the time of the initial contact with that office, provided the student completes the requirements for the withdrawal. Incomplete applications for withdrawal will be denied. Any student who fails to comply with the withdrawal procedures will receive grades for the semester and must satisfy the financial obligations for the semester.

Refunds of tuition and fees after week three are regulated through a separate policy. The student must complete the withdrawal process and then petition for a refund. The petition is available in the Student Life Office and the decision on the request will be made by the dean of student life and shall be final.

#### PASS/FAIL GRADING SYSTEM

Certain courses which, in the judgment of the department or program, have been determined to be inappropriate for the traditional grading system are designated as Mandatory Pass/Fail. Courses which carry this designation include the words, Mandatory Pass/Fail, at the end of the course descriptions in Chapter 4. For courses taken on a Mandatory Pass/Fail basis, completed grades will be either a *P* or an *F*. The grade of *P* is not included in the grade point average but the hours earned apply toward graduation. The grade of *F* is computed in the grade point average as a failure but no hours of credit are earned. If a student receives an *INC* in a Mandatory Pass/Fail course, the same regulations apply for completion of the work as apply for all other grades of *INC*, as explained in the Grading System Explanation above.

In addition to the Mandatory Pass/Fail courses, an Elective Pass/Fail grading policy was in effect through the end of Spring Semester, 1987. The regulations concerning the discontinued policy appear in the 1986-1987 undergraduate bulletin.

### CHANGING OF GRADES

Grades given at the end of a course are final and may not be changed by additional work or submitting additional materials. When work is completed for a course in which an *INC* grade has been given, instructors notify the Office of Admission and Records of that fact, along with the final grade to be given, by completing a Grade Change Card.

Occasionally, students may wish to question grades given, either for accuracy or for removal of grades in situations when they were unable to perform some required step for reasons beyond their control. Only the assigned instructor for a course has the authority to change a grade except in the instance when the instructor is no longer employed by the University. Extenuating circumstances which transcend faculty judgment of the instructor may be appealed through procedures established by the instructor's school or college. Matters related to faculty judgment in grading may not be appealed. Any change of grade, except for changing an *INC* to a final grade within the time period designated, must be signed not only by the instructor but also by the departmental chairperson and the dean of the academic unit.

### Scholastic Standing

The matter of scholastic standing is quite often of importance to students both while in school and later when they present a transcript of their educational record in support of their application for employment or additional schooling.

At the end of each semester or session of attendance a grade report is prepared for each student showing, in addition to the grades earned that semester or session, the scholastic standing and the grade point average for that semester or session and for the overall record at Southern Illinois University at Carbondale. It is important that students understand the University's system for computing grade point averages and the various grade point average requirements.

Transferred grades are not to be used in determining students' calculated grade point averages, except that transfer students who are admitted on probationary status will be required to earn a 2.0 average semester by semester until a total of 12 semester hours has been earned, before they can be removed from probation.

The significance of the above should be clearly understood by transfer students when studying the general baccalaureate degree requirements. A 2.0 (*C*) average is required for the work taken at this University.

In computing students' grade point averages all grades of *A*, *B*, *C*, *D*, and *F* are included in determining the number of *calculated* hours. Each hour of these grades (1 hour of *A* is worth 4 grade points) is given its numerical grade points, and the total number of calculated hours is then divided into the total number of grade points to determine the student's grade point average.

Effective with the 1971 summer quarter all earned grades carrying grade point values are considered when computing students' grade point averages, including each earned grade in a repeated course that is taken during the 1971 summer quarter and thereafter. When computing averages through 1971 spring quarter the policy contained in the 1970-71 Undergraduate Catalog is followed.

*Transfer from One School or College to Another.* Students with less than a *C* (2.0) grade point average who desire to change from one school or college to another will be admitted to the new academic unit only if approved by the dean of that unit.

### Scholastic Probation and Suspension System

Students are expected to make satisfactory progress toward a degree, certificate



or other approved objective. To ensure that students are making progress their records are checked against the regulations below.

#### SCHOLASTIC PROBATION

When a student's semester average and the cumulative University average fall below a *C* average (2.0), the student will be placed on scholastic probation. A student on scholastic probation may continue enrollment at the University provided the student does not accumulate more than six negative points. See Positive and Negative Grade Points below for an explanation of how positive and negative points are calculated. The student with more than six negative points will not be suspended so long as the term average is *C* (2.0) or above. A student will remain in the category of scholastic probation until the cumulative University average is *C* (2.0) or higher.

While on scholastic probation students may not enroll for more than 14 hours per semester unless approved to do so by the dean of their academic unit. Students employed full time may not register for more than eight hours without approval of the head of their academic unit. Other limitations may be established by the academic unit within which the students are enrolled. Students enrolled in programs for the military or students enrolled in programs with a weekend or evening format are not restricted to the eight hour limit while on probation.

#### CONDITIONAL STATUS

Students admitted on condition are on scholastic probation for the term admitted. In addition, they must enroll for a minimum of twelve semester hours and complete ten semester hours of graded work (*A, B, C, D, F*). Students admitted on condition who meet the hour requirements will be placed in good standing when they earn a *C* (2.0) average or higher. They will remain on scholastic probation if they earn less than a *C* average but six or fewer negative points. Students who earn more than six negative points will be scholastically suspended.

#### TRANSFER STUDENTS ADMITTED ON PROBATION

Transfer students admitted on scholastic probation will remain in that status until they have earned a minimum of 12 semester hours of credit with at least a *C* average at Southern Illinois University at Carbondale. If they earn below a *C* for any session while on scholastic probation, they will be placed on scholastic suspension.

#### SCHOLASTIC SUSPENSION

Students will be scholastically suspended from the University if they fail to meet the requirements of their conditional or probational status. Students placed on Scholastic Suspension may seek reinstatement after a minimum of two semesters' interruption but must furnish tangible evidence that additional education can be successfully undertaken. Some academic units have scholastic requirements in addition to the overall University requirements listed here. Students must learn and comply with the University requirements as well as those requirements applying to individual schools and colleges.

#### POSITIVE AND NEGATIVE GRADE POINTS

Positive and negative grade points are assigned to grades above or below a *C*. There are two methods to figure points depending upon the information which is available.

*Grade Slip Available.* The grade slip printed at the end of each semester lists the hours used in calculating the average and the grade points earned. Since *C* has a



value of two grade points on a 4 point scale, grade points equalling a *C* average are exactly twice the number of hours calculated. All grade points over that amount are positive grade points. All grade points under the amount are negative grade points.

For example:

<i>Hours Calculated</i>	<i>Grade Points</i>	<i>Grade Point Average</i>
60	120	(C) 2.0

Twice the hours calculated equals 120 grade points. This is a *C* (2.0) average. A student with 60 calculated hours and only 115 grade points would have five negative points (1.92 average). A student with 30 calculated hours and 55 grade points would have five negative points (1.83) average.

*Grades and Hours of Credit Available.* Whenever all grades and hours of credit are known and grade points have not been assigned as on the grade slip, a simple method is to assign positive and negative points as follows:

*A* = 2 positive points per hour

*B* = 1 positive point per hour

*C* = 0

*D* = 1 negative point per hour

*F* = 2 negative points per hour

For example:

3 hours of *A* × 2 positive points = 6 positive points

3 hours of *B* × 1 positive point = 3 positive points

3 hours of *C* × 0 points = 0

2 hours of *D* × 1 negative point = 2 negative points

4 hours of *F* × 2 negative points = 8 negative points

The ten negative points are balanced by only nine positive points so the sample has one negative point.

Negative points are also used to easily determine exactly what grades must be earned to raise the average to *C*. For example, a student with eight negative points could raise the average to *C* by earning four hours of *A* grade or eight hours of *B* grade, assuming all other grades earned are *C*.

## Credit

### UNIT OF CREDIT

The University is on the early semester calendar. All references to hours of credit in this catalog are to semester hours unless otherwise specified. One semester hour of credit is equivalent to one and one-half quarter hours. One semester hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one semester and, in the case of laboratory and activity courses, the stated additional time.

### CLASS STANDING

The University requires students to earn at least 120 semester hours of acceptable credit in order to receive a baccalaureate degree. For academic classification purposes a freshman is a student who has completed fewer than 26 hours; a sophomore, from 26 through 55; a junior, from 56 through 85; and a senior 86 or more.

### ACADEMIC LOAD

The University considers 12 hours as the minimum number to constitute fulltime attendance. This is the figure used for enrollment reporting purposes, by the Illinois State Scholarship Commission, and for Public Law 358 on the undergraduate level. Students attending school under some type of scholarship or assistance program that requires them to be enrolled as full-time students should check with the University office administering the program on this point. Further informa-

tion on Public Law 358 is available at the Office of Student Work and Financial Assistance.

Academic load guidelines are as follows:

LOAD	REGULAR SEMESTER	8-WEEK SUMMER SESSION
Minimum load for full time	12	6
Average load	15-16	7-8
Maximum load without dean's approval	18	9
Maximum load <sup>1</sup>	21	11

<sup>1</sup>This maximum may be exceeded by very special action of the respective academic dean, and rarely more than once in the student's degree program.

Students on scholastic probation may not take more than 14 hours without approval of the dean of their academic unit. Students employed full-time may not register for more than eight hours.

EXTENSION (OFF-CAMPUS) AND CORRESPONDENCE CREDIT

The University accepts credit earned through extension, off-campus, or correspondence programs toward the bachelor's degree. Not more than 30 semester hours may be taken in correspondence work.

Correspondence work is accepted when taken from institutions which are regionally accredited if the grade is of C quality or better. Southern Illinois University at Carbondale operates an individualized learning program similar to correspondence programs in which students may earn academic credit. More information about individualized learning is in Chapter 3 under *Division of Continuing Education*.

The University offers off-campus courses whenever (1) it is apparent there is a need and potential enrollment to justify scheduling, (2) it is possible to obtain a faculty member to instruct the class, and (3) adequate laboratory and library facilities are available.

Persons may enroll for off-campus work on an audit basis provided facilities are available. They must receive permission of the instructor to do so, and they must pay the same tuition as though they were registering for credit.

Further information may be obtained from the Division of Continuing Education.

CREDIT FOR MILITARY EXPERIENCE

Students who have served one year or more of active duty and who have received an honorable discharge may receive two hours of aerospace studies credit, two hours of physical education credit, and two hours of health education credit. Service of six months to one year may result in two hours of freshman aerospace studies credit; less than six months of active service allows no college credit.

Credit will be accepted for DANTES subject standardized courses within the limitations enforced for extension and correspondence work. No credit is allowed for college-level GED tests. In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, *Guide to the Evaluation of Educational Experiences in the Armed Forces*, are followed.

In order to receive credit for military service, veterans must present a copy of discharge or separation papers to the Office of Admissions and Records.

# Graduation Procedures

The academic requirements for the various baccalaureate degrees are listed in



Chapter 3. Presented here are the procedures students expecting to graduate must follow.

Graduation ceremonies are held each year at the end of the spring semester and the summer session. Degree candidates must apply for graduation with the Office of Admissions and Records by not later than the end of the first week of the semester in attendance before the expected graduation date. Candidates who plan to complete requirements at the end of the fall semester should apply for graduation during the first week of the fall semester. Although there is no ceremony at that time, degree candidates who complete requirements will have that fact indicated on their academic records. Application forms are available in the Office of Admissions and Records and may be obtained by mail by writing that office.

A \$10 graduation fee is established for all persons receiving degrees. The fee is payable at the time of application. The fee does not cover the rental fee for the cap and gown or the cost of the invitations. Both of these items are ordered through the University Book Store in the Student Center. Questions regarding the cap and gown and the invitations should be referred to the University Book Store.

In addition to completing the steps for application for graduation, students are responsible for determining that they are meeting all graduation requirements and have no outstanding financial obligation to the University. To assure that students are meeting the academic requirements, each academic unit provides a graduation check-up service through its academic advisement process, through which the satisfying of academic requirements can be verified. Even though the University does provide an academic check on graduating students, this is done primarily to be sure that it is graduating students who have met the requirements. The advising of individual students as to their progress is a service provided them and does not relieve students of their responsibility to make certain they are meeting the requirements. Students should check with their academic advisers as to the procedures they should follow in this matter as they approach graduation.

Graduating students who have outstanding financial obligations or delinquent accounts with the University will not receive either the diploma or transcripts until their accounts are paid.

Attendance at commencement is not compulsory. If you do not plan to attend, notification must be sent to the Office of Admissions and Records. This information is needed for seating arrangements and for mailing purposes.

The University has a Graduation Appeals Committee whose function it is to hear student's petitions to be permitted to graduate even though they have not satisfied all University graduation requirements. The committee hears only those cases involving University requirements for a baccalaureate degree. Appeal relative to a major or academic unit requirement is through the appropriate administrative official. Ordinarily, the Graduation Appeals Committee will give consideration to an appeal only if there is tangible evidence that the matter at issue is of an unusual nature and that it has resulted due to conditions beyond control of the student. Appeal is initiated through the Office of Admissions and Records.

## University Recognition of High Scholastic Achievement

*Dean's List.* At the end of each semester, a dean's list is prepared. The criteria for inclusion on the dean's list is established by each of the academic units. To be recognized as being on the dean's list, the student must have been in attendance full-time (12 semester hours or more) and must have earned the average for the semester which has been specified by the academic unit. If the student has met



the criteria established, a notation will appear on the grade slip at the end of the semester. The dean's list is recognition for a particular semester. It does not take into consideration the student's complete record.

*University Honors Program.* The University Honors program is explained in this chapter. Successful participants in all-campus honors programs which require maintenance of appropriate minimal scholastic standards, such as the University Honors program, receive recognition on the academic record at the time the degree is recorded and on the diploma.

*Departmental Honors.* Honors courses, individual honors work, and honors curricula, all designed to serve the student with high scholastic potential, are offered by departments in the School of Agriculture, the College of Human Resources, the College of Liberal Arts, and the College of Science. A departmental or academic unit honors program consists of no fewer than six nor more than fourteen semester hours in research or independent study which is counted toward the student's major. Some honors programs require a comprehensive examination at the end of the junior year and again at the end of the senior year. Grades may be deferred at the end of the first semester, but not from one school year to the next. Successful completion of a departmental or academic unit honors program is indicated on the academic record at the time the degree is recorded and on the diploma, e.g., departmental honors in economics.

*Scholastic Honors Day.* Each spring a Scholastic Honors Day convocation is held to honor students exhibiting high scholastic achievement. All students who have maintained a cumulative grade point average of 3.50 or higher, and who have been full-time students during the entire academic year, are honored at this time. A 3.50 grade point average is required for all work taken at Southern Illinois University at Carbondale, and in the case of transfer students, the cumulative average must be at least 3.50 also. Each academic unit has its own convocation and each student is recognized individually on this day.

A variety of professional, departmental, and fraternal honorary organizations offer recognition and membership based upon scholastic achievement. Election or selection to most of these organizations is noted at the Scholastic Honors Day ceremonies. The following are examples of some of these organizations: Alpha Epsilon Rho, Alpha Lambda Delta, Beta Alpha Psi, Beta Gamma Sigma, Kappa Omicron Phi, Pi Mu Epsilon, Pi Omega Pi, Tau Beta Pi, the Liberal Arts and Sciences Honor Society, and the Honor Society of Phi Kappa Phi. Selection to membership in these organizations is not reflected on the academic record or diploma.

*University Honors/Departmental Honors Recognition at the Time of Graduation.* Graduating students with scholastic averages of 3.90 or higher receive University highest honors; those with 3.75-3.89 receive University high honors; and those with 3.50-3.75 receive University Honors. These averages apply to all work at the University, and in the case of transfer students, the averages also apply to the cumulative record. Whichever of the University Honors apply, plus graduation with departmental honors, are recorded on the student's academic record at the time the degree is recorded and on the diploma.

## Program Flexibility for the Student

The University offers students a wide variety of programs on all higher educational levels. Chapter 4 lists specialized programs available on the associate and baccalaureate levels. In addition, the University gives constant attention to meth-

ods whereby it might better serve present day educational needs. Described below are opportunities provided students to either (1) earn credit through means other than the traditional classroom method or (2) develop programs better suited to individual student needs than are the already established programs described in Chapter 4. While greater flexibility is the goal, the University exercises appropriate supervision to ensure the flexibility is accompanied by educational soundness.

### **Credit by Means other than Classroom Attendance**

Several methods are provided for students to earn credit by means other than the traditional classroom method. The methods currently available are described below.

#### **HIGH SCHOOL ADVANCED PLACEMENT PROGRAM**

Through the High School Advanced Placement Program high school students who are qualified through registration in an advanced placement course in their high schools or through other special educational experiences may apply for advanced placement and college credit through the Advanced Placement Program of the College Board. To receive credit, students must earn a grade of 3, 4, or 5.

Ordinarily, the maximum credit granted through advanced placement examinations is fifteen hours. It is nonresident credit, does not carry a grade, and is not used in computing the students' averages. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of fifteen hours. Students may appeal to academic deans to be granted more than fifteen hours.

Advanced classes which qualify for this purpose are offered in many high schools in specific subjects such as English composition, foreign languages, history, biology, chemistry, mathematics, and physics. A national examination is given in each subject with the examinations administered through the Educational Testing Service. The examinations are prepared by a national committee of high school and college teachers and are intended to measure the achievement of the student and determine at what point the student should begin college work in the subject.

The credit to be granted at Southern Illinois University at Carbondale is determined by the appropriate department. The following is a list of courses for which a student may currently receive credit:

1. Physics: credit to be determined in consultation with the chairperson of the Department of Physics.
2. Chemistry: Chemistry 222 a,b (eight semester hours)
3. Biology: GE-A 115 (three semester hours)
4. American History: GE-B 301 and History 300 (six semester hours)
5. European History: History 200 (three semester hours)
6. English: GE-D 101 (three semester hours)
7. Foreign languages: credit to be determined in consultation with the chairperson of the Department of Foreign Languages and Literatures.
8. Mathematics: Calculus AB: Mathematics 150 (four semester hours)  
Calculus BC: Mathematics 150 and 250 (eight semester hours).
9. Music: credit to be determined in consultation with the director of the School of Music.
10. Art: credit to be determined in consultation with the director of the School of Art.

Further information about the advanced placement program may be obtained from the appropriate regional office of the College Board or by writing The College Board, 888 Seventh Avenue, New York, New York 10019.



## COLLEGE LEVEL EXAMINATION PROGRAM

Through the General Examinations of the College Level Examination Program (CLEP), students may apply for credit which will substitute for General Education courses. With a score of 520 or higher on the appropriate examination, it is possible for students to receive six semester hours of credit in each of the three fields of natural sciences, social sciences and history, and humanities. These six hours will count for the core courses in each of Areas A, B, and C of General Education.

A score of 580 or higher is required to pass the mathematics test. With this score students may earn four hours of credit which will fulfill the General Education mathematics requirement.

*For those who test through April, 1986.* With a score of 650 or higher on the CLEP English examination, students are permitted to take GE-D 120, Freshman Honors Composition (three semester hours), instead of GE-D 101 and GE-D 117 (five semester hours). A student who scores 675 or above on the CLEP English examination will receive five semester hours credit (three semester hours GE-D 101 and two semester hours GE-D 117). A score of 650 to 674 entitles the student to receive (a) advanced placement in GE-D 120, Freshman Honors Composition, and (b) five semester hours credit upon the satisfactory completion of GE-D 120 with a grade of C or higher (three semester hours GE-D 120 and two semester hours GE-D 117).

*For those who test after April, 1986.* With a score of 540 or higher on the CLEP English examination, students are permitted to take GE-D 120, Freshman Honors Composition, instead of GE-D 101 and GE-D 117. A student who scores 565 or above on the CLEP English examination will receive five semester hours credit. A score of 540 to 564 entitles the student to receive (a) advanced placement in GE-D 120, Freshman Honors Composition, and (b) five semester hours credit upon the satisfactory completion of GE-D 120 with a grade of C or higher (three semester hours of GE-D 120 and two semester hours of GE-D 117).

If, prior to taking the CLEP examination, students have received a grade or audit in college level work in any discipline included in the CLEP exam or if they have enrolled in such a course, they shall be ineligible for credit. An exception to this rule is made in the case of students who enroll in the Early Admission program. Such students receive university credit for courses taken during the Early Admission experience and for the CLEP credit earned.

The science exam includes botany, microbiology, physiology, zoology, chemistry, physics, earth science, geography, and all General Education Area A courses. The social sciences and history exam includes western civilization, American history, Afro-Asian civilization, world history, political science, economics, anthropology, sociology, social psychology, social studies, and all General Education Area B courses. The humanities exam includes literature – poetry, fiction, drama, non-fiction, creative writing; films and performing arts; art – art appreciation, art history, architecture (past and present); music – classical, modern or jazz; humanities – all general humanities courses; all General Education Area C courses; philosophy – aesthetics, ethics, general survey. The mathematics test includes all college-level mathematics.

Students may be exempted from all General Education requirements if they (1) pass all five CLEP General Examinations before entering the University with these minimum scores; natural sciences, social sciences, and humanities, 520; English, 565; and mathematics, 580, and (2) complete all requirements of the University Honors Program. No retroactive extension of the CLEP privilege will be allowed.

For further information, students should consult with their academic adviser.



CLEP examinations should be taken at one of the national testing centers and the results sent to the local CLEP coordinator. The results are then forwarded to the Office of Admissions and Records for evaluation.

#### PROFICIENCY EXAMINATIONS

Through its proficiency examination program the University recognizes the importance of providing encouragement for academically talented students. Such students are permitted to make application to demonstrate the mastery of certain courses through proficiency examinations. Application forms are available at the departmental offices.

The following general rules govern the proficiency examinations for undergraduate credit.

1. Students who believe they are qualified to take a proficiency examination should check with the department offering the course to determine their eligibility to do so; students scoring in the top ten percent of ACT are particularly encouraged to avail themselves of this opportunity.
2. Credit not to exceed thirty hours (fifteen hours toward an associate degree), including credit through the College Board, Advanced Placement Program, and the College Level Examination Program may be earned through proficiency examinations. Credit will be nonresident. (A combined total of 40 hours may be earned through proficiency examinations and credit for work experience.)
3. Upon passing proficiency examinations students are granted course credit and receive *Pass* grade. Their records will show the name of the course, the hours of credit granted, and a notation "credit granted by proficiency examination." Students who fail a proficiency examination receive a *Fail* grade. This results in no penalty to the students. They will not receive credit and their record will show nothing regarding the proficiency examination. However, the proficiency examination grade report form will be in the students' folders for reference purposes.
4. Students may not take proficiency examinations for the same course more than one time. Neither may they take a proficiency examination in a course in which they have previously received a grade. Students who are registered for a course may not receive credit by proficiency examination for that course unless they withdraw from the course by the date during the semester which would result in no course entry appearing on the transcript. This date is the end of the third week for a regular semester course, and a correspondingly shorter period for summer session or short courses. Individual departments may require the proficiency examination to be completed in advance of this date.
5. No credit granted by proficiency examinations will be recorded until the student has earned at least 12 hours of credit of *C* grade or above in residence at the University.

#### CREDIT FOR WORK EXPERIENCE

Southern Illinois University at Carbondale recognizes that there might well be a number of undergraduate programs for which work experience has a meaningful relationship. It, therefore, permits those undergraduate programs to grant credit for work experience that relates to students' areas of specialization. The credit granted is to apply to the major program and is awarded only upon approval by the major departments. Credit earned by work experience is limited to 30 hours and any combination of credit for proficiency examinations and credit for work experience is limited to 40 hours. Credit granted for work experience is considered nonresident credit when granted for work that is not part of a regular instructional course. Students should consult with their major departments to see whether they approve credit for work experience.

### **Three-Year Baccalaureate Degree Program**

It is possible for students to complete the regular four-year baccalaureate degree program in three years by utilizing proficiency examinations. The equivalent of one year of credit (30 semester hours) may be earned by this method. Students who desire to follow the three-year program should make that fact known to their academic advisers at the earliest possible date so their eligibility can be determined. A combination of programs may be employed to accumulate these 30 hours as described above in the section on Credit by Means Other than Classroom Attendance.

### **University Honors Program**

The University Honors Program is designed to enable academically talented undergraduate students to take specially designed and challenging classes; to fulfill University and college requirements by participating in independent studies, colloquia and advanced courses; and to elect interdisciplinary, extracurricular, and cocurricular activities sponsored and administered especially for academically qualified students. Some special scholarships and internships are available to University Scholars.

Honors sponsors and University Honors staff assist qualified students in designing individualized programs tailored to needs, interests, and talents.

Membership in the University Honors Program is granted to entering freshmen who apply for membership who graduate in the top 10% of their high school graduating class, and who also have an ACT composite score higher than the 89th percentile. The director of honors may also admit a freshman to membership in the University Honors Program on the basis of other factors, including high school experiences, letters of recommendation, or other evidence of exceptional promise. Membership may be granted to other than entering freshmen who apply for membership and who have a superior academic record such as a cumulative grade point average in the upper ten percent for students at a comparable point in their academic studies.

Members of the University Honors Program are designated as University Scholars. Retention in the University Honors Program depends upon maintaining a 3.25 cumulative grade point average in all coursework and no failing grades in honors courses. Students are kept aware of their status in the program at all times.

University Scholars should enroll in an average of one honors course per semester and maintain normal progress toward a degree. Normal progress is defined as 24 semester hours per academic year. A minimum of 15 hours of honors work is required as a University Scholar. A University Scholar not engaged in a departmental honors program must complete an honors thesis during the senior year. Substitutions for this requirement may be arranged for a student in a major which does not allow curricular flexibility.

University Scholars may complete the General Education requirements of the University by enrolling in advanced courses in departments which offer General Education classes. Individual options may be exercised which fulfill the spirit of General Education requirements but, to challenge the University Scholar, may depart from standard University requirements. University Scholars are permitted to waive some University requirements when they have CLEP scores at an appropriate level.

Baccalaureate degrees for University Honors Program participants are awarded through the regular degree granting units.

Inquiries about the program should be addressed to the director of honors.

### **Technical Careers Degree Program**

The University provides an opportunity to continue educational pursuits toward a



baccalaureate degree for students possessing an occupational, technical, or other similarly connotated educational background. The School of Technical Careers offers a Bachelor of Science degree for such students. Programs are available to meet the needs of students in relation to their career interests and goals.

The School of Technical Careers offers educational programs at selected military bases and at other off-campus locations in addition to its on-campus programs. Persons interested in further information concerning the School of Technical Careers should contact the dean, School of Technical Careers, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. See also School of Technical Careers in Chapter 3 and Advance Technical Studies in Chapter 4.

### **University Studies Degree Program**

The University Studies degree program permits students an additional option toward the baccalaureate degree. The program is intended for the student seeking an individualized education and who does not wish a major on the undergraduate level. Students may work toward either a Bachelor of Arts or Bachelor of Science degree in University Studies.

Students interested in the University Studies program should consult with the program director in Undergraduate Academic Services for more information. See the description in Chapter 4.

### **Special Major Program**

Individual students with academic needs not met in any of the existing majors within the University may arrange a program of courses more suited to their special requirements. See the description of the Special Major in Chapter 4.

### **Capstone Program**

The Capstone Program has been developed for students who completed a two year vocational or technical program and then change their educational goals to include the pursuit of a baccalaureate degree. The program attempts to plan an individualized course of study for each student which will allow completion of a bachelor's degree with two additional years of credit beyond an associate degree. Chapter 3 includes information about provisions of the Capstone Program, admission requirements, and those academic units and majors which participate in the Capstone Program. Not all units and majors provide the Capstone option to this kind of applicant.

### **Internships in Washington**

Eligible students from Southern Illinois University at Carbondale can combine a work and learning experience for credit through the Washington Center. Participants can intern in congressional offices, executive agencies, and with groups in many other areas such as the environment, consumer affairs, journalism, communications, legal affairs, labor relations, health policy, arts, education, science, public relations, urban affairs, and women's issues. Students also attend seminars taught by representatives of major governmental agencies, interest groups, and corporations.

Prior arrangements are made through major departments to receive up to twelve semester hours for fall or spring semesters and up to six semester hours for a summer session.

The Washington Center internships at the University are coordinated through the office of the University Honors Program.

### **Opportunities for Study Abroad**

1. The University sponsors a number of group programs including the following:

Year abroad in Austria: Two semesters are offered in Vienna at the Padagogische



Akademie and other institutions. All courses are taught in German and require the student to have completed five semesters of college-level German or equivalent with a 3.0 grade point average. Students may earn 30 to 34 semester hours of undergraduate credit in German language, literature, and civilization and in certain other areas with prior approval. Additional information may be obtained from the Department of Foreign Languages and Literatures.

Semester Abroad in London: Southern Illinois University at Carbondale is one of the institutions sponsoring one or two semesters at the London Study Center. Other participating institutions are Western Illinois University, the University of Nevada at Reno, the University of Nevada at Las Vegas, and University of Wisconsin at Milwaukee. The program provides an opportunity for students to enroll in a variety of lower and upper division courses taught by faculty from the cooperating institutions. Course offerings change each semester. Additional information may be obtained at International Programs and Services.

International Student Exchange Program: This exchange program is multilateral and involves one-year placements at 63 study sites worldwide. It is a one-for-one exchange plan under which students pay their normal tuition and fees, including room and board, and apply credit earned toward their degrees. There are study sites in Africa, Asia, Australia, the British Isles, Canada, Europe, and Latin America. Applicants must be mature, have a minimum grade point average of 3.25, and possess the appropriate foreign language skills. Acceptance into the program is considered an honor bestowed in lieu of a scholarship. Most forms of financial aid can be used for this program. Additional information may be obtained at International Programs and Services.

Travel/Study Program: Travel/Study courses are offered during intersessions as well as during the summer months. Students must register four to six months prior to the start of the course and may earn graduate or undergraduate credit depending upon the nature of the course. Approximately ten offerings are available during each academic year, ranging in length from one week to one year. Courses are taught by full-time faculty of Southern Illinois University and most do not require a specialized foreign language background. Additional information may be obtained at International Programs and Services.

2. The University sponsors a number of exchange programs with institutions of higher education in other countries. These include the following:

Australia: Cumberland College of Health Sciences, Lidcombe, New South Wales (Rehabilitation Institute).

Brazil: Fundacao Educational de Bauru, Bauru, Sao Paulo (Rehabilitation Institute).

China: Liaoning University, Shenyang, Liaoning; Northeast Normal University, Changchun, Jilin; Sichuan University, Chengdu, Sichuan.

Eastern Europe: Eastern European Universities Exchange Program (Department of Chemistry and Biochemistry).

France: Inter-University Center for Film and Critical Studies, Paris, France (Cinema and Photography); University of Caen, Caen, France (Department of Foreign Languages and Literatures).

Germany: University of Hamburg, Hamburg, West Germany (Department of Foreign Languages and Literatures); University of Mainz, Mainz, West Germany (Department of Foreign Languages and Literatures).

Greece: Agricultural College of Athens, Athens, Greece (Cooperative Fisheries Management Research).

Japan: Kansai University for Foreign Studies, Hirakata, Japan (Department of Foreign Languages and Literatures).

Nepal: Tribhuvan University, Kathmandu, Nepal (Department of Higher Education).

Switzerland: Dolmetscherschule, Zurich Interpreters School, Zurich, Switzerland (Department of Foreign Languages and Literatures).

Virgin Islands: College of the Virgin Islands, St. Thomas, Virgin Islands (Department of Botany).

West Bank: An-Najah National University, Nablus, West Bank via Israel.

Information concerning eligibility, requirements, program offerings, and application deadlines may be obtained at the International Programs and Services or the department involved.

3. The University provides the opportunity for a student to arrange travel and study abroad on an independent basis. Credit might be earned through (a) a department's independent study courses such as readings, individual research, practicum or related types of courses with prior departmental approval; or (b) a department or college's travel/study course where offered. Additional information is available from the study abroad coordinator, International Programs and Services.

4. Southern Illinois University at Carbondale may also grant credit for programs not sponsored by the University. A student may enroll in a study/travel program conducted by a regionally accredited United States institution and transfer the credit to this university. Credits earned in this manner will be evaluated as electives unless a department, program, or the Office of Admissions and Records approved the courses in advance to apply toward specific requirements. Additional information may be obtained from International Programs and Services.

A student may enroll in either a foreign institution or an independent location of a foreign institution. It is important that the student check with the Office of Admissions and Records before registering since many foreign institutions are not accredited. Graduate students should check with the Graduate School. Credits earned in this manner will count as electives only unless a department or program approves them to apply toward specific requirements.

## Determination of Residency Status

The following is a direct quotation from the Board of Trustees' "Residency Status Policies", which govern the determination of residency status for admission and assessment of student tuition.

For the purposes of these regulations an *adult* is considered to be a student eighteen years of age or over; a *minor* student is a student under eighteen years of age. The term *the State* means the State of Illinois except in the following instances: (1) For the purposes of assessing undergraduate- and graduate-level student tuition, the Presidents, with the agreement of the Chancellor, may take the term "the State" to include the Kentucky Counties of Ballard, Caldwell, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, McCracken, Marshall, Trigg, and Union. (2) For the purposes of assessing undergraduate- and graduate-level student tuition for not more than six semester or nine quarter hours, the Presidents, with the agreement of the Chancellor, may take the term "the State" to include the State of Missouri. Neither exception may apply to the assessment of tuition at the School of Dental Medicine, the School of Law, or the School of Medicine. Except for those exceptions clearly indicated in these regulations, in all cases where records establish that the person does not meet the requirements for resident status as defined in these regulations the nonresident status shall be assigned.

*Note.* On October 7, 1981, and effective with Spring Semester, 1982, the above policy exceptions for Kentucky and Missouri residents were approved for graduate students only. Effective Summer, 1986, the above policy exceptions were extended to undergraduate students. Missouri residents who take more than six hours per term will be charged out-of-state tuition for *all* semester hours taken during the term.



## Residency Determination

Evidence for determination of residence status of each applicant for admission to the University shall be submitted to the Director of Admissions at the time of application for admission. A student may be reclassified at any time by the University upon the basis of additional or changed information. However, if the University has erroneously classified the student as a resident, the change in tuition shall be applicable beginning with the term following the reclassification; if the University has erroneously classified the student as a nonresident, the change in tuition shall be applicable to the term on which the reclassification occurs, provided the student has filed a written request for review in accordance with these regulations. If the University has classified a student as a resident based on false or falsified documents, the reclassification to nonresident status shall be retroactive to the first term during which residency status was based on the false or falsified documents.

### Adult Student

An adult, to be considered a resident, must have been a bona fide resident of the State for a period of at least three consecutive months immediately preceding the beginning of any term for which he registers at the University, and must continue to maintain a bona fide residency in the State, except that an adult student whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a resident student.

### Minor Student

The residence of a minor shall be considered to be, and to change with and follow:

- a. That of his parents, if they are living together, or living parent, if one is dead; or
- b. If the parents are separated or divorced, that of the parent to whom the custody of the person has been awarded by court decree or order, or, in the absence of a court decree or order, that of the parent with which the person has continuously resided for a period of at least three consecutive months immediately preceding his registration at the University; or
- c. That of the adoptive parents, if the person has been legally adopted and, in the event the adoptive parents become divorced or separated, that of the adoptive parent whose residence would govern under the foregoing rules if that parent had been a natural parent; or
- d. That of the legally appointed guardian of the person; or
- e. That of the *natural* guardian, such as a grandparent, adult brother or adult sister, adult uncle or aunt, or other adult relative with whom the person has resided and by whom he has been supported for a period of at least three consecutive months immediately preceding his registration at the University for any term, if the person's parents are dead or have abandoned him and if no legal guardian of the person has been appointed and qualified.

### Parent or Guardian

No parent or legal or natural guardian will be considered a resident of the State unless said person (a) maintains a bona fide and permanent place of abode within the State, and (b) lives, except when temporarily absent from the State with no intention of changing his legal residence to some other State or country, within the State.

### Emancipated Minor

If a minor has been emancipated, is completely self-supporting, and actually re-



sides in the State, he shall be considered to be a Resident even though the parents or guardian may reside outside the State. An emancipated minor who is completely self-supporting shall be considered to actually reside in the State of Illinois if he has maintained a dwelling place within the state uninterrupted for a period of at least three consecutive months immediately preceding the beginning of any term registration at the University. Marriage or active military service shall be regarded as effecting the emancipation of minors, whether male or female, for the purposes of this regulation. An emancipated minor whose parents (or one of them if only one parent is living or the parents are separated or divorced) have established and are maintaining a bona fide residence in the State and who resides with them (or the one residing in the State) or elsewhere in the State will be regarded as a resident student.

### **Married Student**

A nonresident student, whether male or female, or a minor or adult, or a citizen or noncitizen of the United States, who is married to a resident of the State, may be classified as a resident so long as the individual continues to reside in the State; however, a spouse through which a student claims residency must demonstrate residency in compliance with the requirements applicable to students seeking Resident status.

### **Persons Without United States Citizenship**

A person who is not a citizen of the United States of America, to be considered a Resident, must have permanent residence status with the United States Immigration and Naturalization Service and must also meet and comply with all the other applicable requirements of these regulations to establish resident status.

### **Armed Forces Personnel**

A person who is actively serving in one of the Armed Forces of the United States and who is stationed and present in the State in connection with that service and submits evidence of such service and station, shall be treated as a resident as long as the person remains stationed and present in Illinois. If the spouse or dependent children of such member of the Armed Forces also live in the State, similar treatment shall be granted to them.

A person who is actively serving in one of the Armed Forces of the United States and who is stationed outside the State may be considered a resident only if the individual was a resident of the State at the time of entry into military service except as otherwise specified by Board policy.

A person who is separated from active military service will be considered a resident of Illinois immediately upon separation providing this person: (a) was a resident of the State at the time of enlistment in the military service, (b) became treated as a resident while in the military by attending school at Southern Illinois University at Carbondale while stationed within the State, or (c) has resided within the State for a period of three months after separation.

### **State and Federal Penitentiary**

A person who is incarcerated in a State or Federal place of detention within the State of Illinois will be treated as a resident for tuition assessment purposes as long as said person remains in that place of detention. If bona fide residence is established in Illinois upon release from detention, the duration of residence shall be deemed to include the prior period of detention.

### **Minor Children of Parents Transferred Outside the United States**

The minor children of persons who have resided in the State for at least three consecutive months immediately prior to a transfer by their employers to some loca-

tion outside of the United States shall be considered Residents. However, this shall apply only when the minor children of such parents enroll in the University within five years from the time their parents are transferred by their employer to some location outside of the United States.

### **Dependents of University Employees**

The spouses and dependent children of all staff members (academic, administrative, non-academic) on appointment with the University shall be considered as resident students for purposes of tuition assessment.

### **Contractual Agreements**

The Presidents, with the approval of the Chancellor, may enter into agreements with other institutions in or out of state under the terms of which students at the other institutions are defined as residents of the State of Illinois.

### **Definition of Terminology**

To the extent that the terms *bona fide residence*, *independent*, *dependent*, and *emancipation* are not defined in these regulations, definitions shall be determined by according due consideration to all of the facts pertinent and material to the question and to the applicable laws and court decisions of the State of Illinois.

A bona fide residence is a domicile of an individual which is his true, fixed, and permanent home and place to which, whenever absent, the individual has the intention of returning. Criteria to determine this intention include but are not limited to year-round residence, voter registration, place of filing tax returns (home state indicated on federal tax return for purposes of revenue sharing), property ownership, driver's license, car registration, vacations, and employment.

### **Procedure for Review of Residency Status or Tuition Assessment**

A student who takes exception to the residency status assigned or tuition assessed shall pay the tuition assessed but may file a claim in writing to the appropriate official for a reconsideration of residency status and an adjustment of the tuition assessed. The written claim must be filed within 30 school days from the date of assessment of tuition or the date designated in the official University calendar as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later, or the student loses all rights to a change of status and adjustment of the tuition assessed for the term in question. If the student is dissatisfied with the ruling in response to the written claim made within said period, the student may appeal the ruling to the President or his designee by filing with the appropriate official within twenty days of the notice of the ruling a written request.

## **Policy on the Release of Student Information and Access to Student Records at Southern Illinois University at Carbondale**

### **I. Purpose**

Southern Illinois University at Carbondale, hereinafter referred to as the University, maintains individual records and information about students for the purpose of providing educational, vocational, and personal services to the student. For the purpose of complying with federal regulations regarding the maintenance of confidentiality of student educational records, as required by the Family Educational Rights and Privacy Act of 1974, the following policy has been enacted.



## II. Definitions

- A. "Student" is defined as a person who is or has been enrolled at Southern Illinois University in a course of study either on campus or off campus. Solely for purpose of this policy, any student attending Southern Illinois University will be considered to be an adult and to have sole control over the release of his/her information except as provided in this policy. The term "enrolled" is defined as having registered and paid fees into a course of study.
- B. "Education records" means those records which are directly related to a student, and are maintained by Southern Illinois University or any subunit or by any party acting for Southern Illinois University. The term does *not* include:
  - 1. Personal records of instructional, supervisory, and administrative personnel which are not revealed to other individuals.
  - 2. Records of a law enforcement unit of an educational institution which are maintained apart from the education records, maintained solely for law enforcement purposes, and are not disclosed to individuals other than law enforcement officials of the same jurisdiction.

For purposes of this policy, the Southern Illinois University Security Office will be treated as an outside agency and will therefore be required to comply with all regulations relating to the disclosure of information from students' educational records, as set forth in the policy.
  - 3. Employment records, so long as they are maintained separately from any educational record.
  - 4. Records of a physician, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity which are used only in connection with treatment and are not disclosed to individuals other than those providing the treatment; *Provided*, that these records can be personally reviewed by a physician or other appropriate professional of the student's choice.
  - 5. Records which contain only information relating to a person after that person was no longer a student at Southern Illinois University, such as alumni files.
- C. "Student Information" means any information contained in an educational record as defined in II. B.
- D. "Personally identifiable information" includes:
  - 1. The name of a student, the student's parents, student's spouse, or other family member.
  - 2. The address of the student.
  - 3. A personal identifier such as the student's social security number or student number.
  - 4. A list of personal characteristics which would make the student's identity easily traceable.
  - 5. Other information that would make the student's identity easily traceable.
- E. "Directory information" includes:
  - 1. Student name.
  - 2. Student local address and telephone number.
  - 3. Student home address and telephone number.
  - 4. Current term hours carried.
  - 5. Classification (freshman, sophomore, etc.)
  - 6. Academic unit.
  - 7. Major.



8. Date of attendance.
9. Degrees and honors earned and dates.
10. The most previous educational agency or institution attended prior to enrollment at Southern Illinois University.
11. Participation in officially recognized activity or sport.
12. Weight, height, and pictures of members of athletic teams.
13. Date of birth.
14. Picture.

### **III. Basic Policy Regarding Disclosure of Information from Educational Records**

#### **A. Disclosure not requiring prior consent**

1. The appropriate recordkeeping office shall obtain the written consent of the student before disclosing personally identifiable information from the records of a student, except in the case of directory information or disclosures to:
  - a. The student himself/herself.
  - b. University personnel who have a legitimate educational need to permit their functioning or research. The sufficiency of the need will be determined by the head of the unit from which the records are sought.

Student information supplied to any Southern Illinois University personnel or unit is provided on the basis that it is needed to permit their necessary functioning. All members of the faculty, administration, and clerical staff must respect confidential information about students they require in the course of their work. They are bound by the conditions outlined in this policy statement relative to the release of student information. All institutional personnel should be alert to refer promptly to the appropriate office requests for transcripts, certifications, or other information which that office typically provides. They should restrict their responses to acknowledging, when appropriate, the receipt of requests for student information germane to their sphere of responsibility.

- c. Officials of other schools or school systems in which the student seeks or intends to enroll, if there is a legitimate need. The sufficiency of the need will be determined by the head of the unit from which the records are sought. A copy of any information sent will be provided to the student upon request.
- d. Faculty or students conducting student characteristic research providing the research project has written approval of the academic unit executive officer sponsoring the research and providing guarantees are made that no personally identifiable information will be published or released.
- e. Certain state and federal representatives specified by law for the sole purpose of evaluating and auditing of governmentally funded programs in which the University participates, with the guarantee that the identity of the students will be protected.
- f. State and local officials as directed by the State Statute adopted prior to November 19, 1974, as approved by University Legal Counsel.
- g. Organizations conducting studies for, or on behalf of, state or federal educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction,

with the guarantee that the identity of the student shall be protected.

- h. In connection with financial aid for which the student has applied or received.
- i. Accrediting organizations to carry out their accrediting function, with the guarantee that the identity of the student shall be protected.
- j. Appropriate persons in connection with an emergency, if knowledge of such information is necessary to protect the health or safety of a student or other persons.
- k. Comply with a judicial order or subpoena, but the University should make a reasonable effort to notify the student first. The sufficiency of the order or subpoena will be determined by the University Legal Counsel and that office shall send the required notice to the student.

**B. Disclosure Requiring Prior Consent**

- 1. Except as listed in A above, all requests for student information other than directory information must be accompanied by a written consent of the student.
- 2. The written consent required by this section must be signed and dated by the student giving the consent and shall include (a) a specification of the records to be disclosed, and (b) the party or parties to whom the disclosure may be made.
- 3. When the disclosure is made pursuant to this section, the appropriate recordkeeping office shall, upon request, provide a copy of the records which are disclosed to the student.
- 4. Student information will not be released to parents of students without the student's permission.

**C. Disclosure of Directory Information**

Directory information pertaining to students may be released by the University at any time provided that it publish the definition at least once each academic year in the campus student newspaper or other designated publication with wide circulation, and the individual student is given a reasonable period of time to inform the University in writing, through the Office of Admissions and Records, that he/she does not wish such information about himself/herself to be released without his/her prior consent. The Office of Admissions and Records will be responsible for identifying or deleting all information which the student desires not to be released outside the University and for informing all University recipients of that information that such information is not to be released. The student must request deletion of information each year.

The procedural requirements of this section do not apply to the disclosure of directory information from the educational records of an individual who is no longer in attendance at the University. Thus, the University (or appropriate recordkeeping office) is not required to give public notice of the above to former students.

All recipients of student information will be bound by this policy. Lists of student information are never knowingly provided to any requesting party for a commercial or political purpose. If a student directory is published, it shall be equally available to all.

**D. Records of Disclosure Made**

Records of disclosure are not required to be kept in the record of a student when the disclosure is initiated by the student himself/herself.

The University may disclose personally identifiable information from the education records of a student only on the condition that the



party to whom the disclosure is made will not further disclose the information without the student's written consent, except in the case of disclosure of directory information.

The University shall, except for the disclosure of directory information, inform the party to whom disclosure is made of the obligation to receive the student's consent before further disclosure to other parties.

**E. Waiver of Right to Inspect and Review Education Records**

1. The student may waive his/her right to inspect and review education records. The waiver, in order to be valid, must be in writing and signed by the student. The University (or each appropriate recordkeeping office) may not require a waiver of rights but it may request such a waiver.
2. If a student has waived his/her right to see confidential letters of recommendation placed in his/her record after January 1, 1975, the waiver will be effective only if: (a) the applicant or student is, upon request, notified of the names of all individuals providing the letters or statements; (b) the letters or statements are used only for the purpose for which they were originally intended, and (c) such waiver is not required by the University as a condition of admission to or receipt of any other service or benefit from the University.
3. A waiver may be revoked, but the revocation must be in writing and signed by the student. Revocation of waiver will affect only documents received after its execution.

**IV. Identification and Description of Student Information**

**A. Academic Records**

The Office of Admissions and Records retains the official academic record of a student. It is a cumulative history of a student's admission, registration, and academic participation and performance. Certain biographic and demographic information is also kept for identification for enrollment and research-related purposes. For information concerning these records contact the Director of Admissions and Records.

Academic records may also be maintained in academic units, departments, and divisions. For information concerning these records contact the head of the academic unit, department, or division in question. The Office of Institutional Research also maintains some academic records.

**B. Financial Records**

Offices within the Business area maintain certain financial records which relate to payment and accounting of tuition, fees, and other charges. They also maintain records which record student loans and grants. For information concerning these records, contact the Bursar's Office.

For billing purposes, the Office of Admissions and Records maintains a record of financial aid received and tuition and fees paid. For information concerning these records, contact the Director of Admissions and Records.

The Office of Student Work and Financial Assistance maintains records of student receiving loans, grants, and aid along with scholarship information and some academic information. It also maintains records pertinent to student employment including the family financial statement. For information concerning these records, contact the Director of Student Work and Financial Assistance.

The Housing Office maintains records of housing accounts. For information concerning these records, contact the Director of Housing.

**C. Medical/Counseling/Clinical Center Records**



The University Health Service maintains medical records of students who have required medical assistances through the student health program. Only information pertinent to the health of the individual is contained therein. For information concerning these records, contact either the administrative director or the medical director of Student Health.

The University Counseling Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of the Counseling Center.

The University Clinical Center maintains records pertinent to services rendered by that office. For information concerning these records, contact the director of the Clinical Center.

**D. Disciplinary Records**

The Office of Student Affairs maintains records of disciplinary action which has been taken against a student with documentation pertaining thereto. That office also maintains only the academic information necessary to permit its functioning. For information concerning these records, contact the dean of Student Life.

**E. Placement Records**

The Office of Career Planning and Placement creates a record for those persons who wish to avail themselves of its services, with student's voluntary participation. This information is distributed to potential employers. It consists of self-completed resumes and various personal references. For information concerning these records, contact the director of Career Planning and Placement.

**V. Access to Records**

**A. Right to Inspect or Review Educational Records**

1. The student has the right to physically review his records in the presence of a designated University representative.
2. Requests for review may be required to be submitted in writing to the appropriate office.
3. That office shall comply with the request within a reasonable time, but in any case, compliance shall be no more than thirty (30) days after the receipt of the request.
4. Where necessary, interpretation of the record shall be provided by qualified University personnel.
5. Original records cannot be removed from University premises. A copy will be provided if requested, but only if not providing a copy would preclude review of the educational records by the student.
6. Copies of transcripts from other educational institutions will be provided only if the original source of those transcripts is no longer available or going to the original source would cause undue hardship as determined by this University.

**B. Limitations on Right to Inspect or Review**

1. The student may not inspect the following records:
  - a. Financial records and statements of their parents.
  - b. Confidential letters or materials placed in records before January 1, 1975 so long as they were solicited with an understanding of confidentiality and are used only for the purpose for which they were written.
  - c. Confidential letters of recommendation and confidential statements of recommendation placed in the education records of the student after January 1, 1975, are subject to the student's right to inspect and review unless the student has signed a written waiver.

2. Reports that involve two or more persons may be censored to protect the identity of the other person(s).

C. Administrative Hold on University Records

On occasion it is necessary for a University to place an administrative hold on a student's ability to request a transcript, to register for a subsequent term, to reenter the University after a period of attendance interruption, or to be officially graduated.

In cases where an administrative hold has been placed on a student's record, the student may view such records but will not be able to obtain a copy of said record until the administrative hold is removed through the appropriate University channels.

## VI. Challenging Contents of a Student's Educational Record

A. Purpose

A student has the right to challenge the content of a record on the ground that he/she believes it is inaccurate, misleading, or otherwise in violation of his/her privacy or other rights and to have inserted in the record his/her written explanation of its contents. Academic grade review procedures are covered in the University Catalog and/or such particular academic unit, department or division and not by this policy.

B. Procedure

To initiate such a challenge, the student shall, within sixty (60) days after he/she has inspected and reviewed the record in question for the first time, file with the University office responsible for maintaining such record a written request for correction, on a form specified by the University. Within thirty (30) days following receipt of such request, the head of such office, or his/her representative, shall review the record in question with the student and either order the correction or deletion of such alleged inaccurate, misleading, or otherwise inappropriate data as specified in the request or notify the student of the right to a hearing at which the student and other persons directly involved in the establishment of the record shall have an opportunity to present evidence to support or refute the contention that the data specified in the request are inaccurate, misleading, or otherwise inappropriate.

C. Hearing

The student shall be given written notice sent to his/her last known address of the time and place of such hearing not less than ten (10) days in advance. The hearing will be conducted by a University representative who does not have a direct interest in the outcome. The student might well challenge the hearing officer. Any disagreement regarding the hearing officer will be resolved by the appropriate Vice President.

The student shall have the right to attend the hearing, to be advised by an individual of his/her choice at his/her own expense, including an attorney, and to call witnesses in his/her behalf. The student shall be notified in writing of the decision within ten (10) days following the hearing or within five (5) days of a decision without a hearing. Such decision is final. The decision reached shall be based solely upon the evidence presented at the hearing and shall include a summary of the evidence and reasons for the decision.

(Note: A hearing may not be requested by a student to contest the assignment of a grade; however, a hearing may be requested to contest whether or not the assigned grade was recorded accurately in the education records of the student.)



**VII. Destruction of Records**

- A. The University may destroy education records when they are no longer necessary, with the following limitations:
  - 1. Education records may not be destroyed if there is an outstanding request to inspect and review them.
  - 2. Explanations placed in the record by the student and the record of disclosure of information must be maintained as long as the education record to which it pertains is maintained.

**VIII. Right to File Complaints**

- A. If the student thinks his or her rights have been violated, he or she should first file a complaint with the head of the office which maintains the records in question.
- B. After exhausting all the internal remedies available within the University, if the student still thinks his or her rights have been violated, written complaints can be filed with:
  - The Family Educational Rights and Privacy Act Office
  - Department of Health, Education, and Welfare
  - 330 Independence Avenue S.W.
  - Washington, D.C. 20201The office shall notify the complainant and the University of the receipt of the complaint and an investigation will follow.

**Issuance of Transcripts**

A transcript of the student's official educational record is issued by the Office of Admissions and Records under the following conditions: A transcript is sent, issued, or released only upon a student's request or with the student's explicit permission, except that such permission is not required when University faculty and administrative personnel or other educational institutions request transcripts for official purposes. In addition, requests will be honored from a philanthropic organization financially supporting a student and from a recognized research organization conducting educational research provided the confidential character of the transcript is protected. A transcript will be issued directly to a student upon request. The transcript will have the statement, **Issued to the Student**, stamped on its face. Transcripts will be sent without **charge to recipients** other than the student as requested, in writing, by the student. **A transcript will not be sent, issued, or released if a student owes money to the University.**

**Student Conduct Code**

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I. Introduction

- A. Purpose  
Southern Illinois University at Carbondale is dedicated not only to learning, research, and the advancement of knowledge, but also to the development of ethically sensitive and responsible persons. The University seeks to achieve these goals through sound educational programs and policies governing individual conduct that encourage independence and maturity. By accepting membership in this University, an individual joins a community characterized by free expression, free inquiry, intellectual honesty, respect for others, and participation in constructive change. All rights and responsibilities exercised within this academic environment shall be compatible with these principles.
- B. Rights and Responsibilities  
Students shall be free to examine all questions of interest to them and to express opinions. They shall be guaranteed all constitutional rights including free inquiry, expression, and assembly. All regulations shall seek the best possible reconciliation of the principles of maximum academic freedom and necessary order.
- C. Title/Authority/Enforcement  
These regulations shall be known as the Student Conduct Code for Southern Illinois University at Carbondale. The regulations contained herein are established under the authority granted by law to the Board of Trustees to establish rules and regulations for Southern Illinois University and pursuant to Chapter 3 *Policies of the Board of Trustees* C authorizing the President to develop regulations dealing with student rights and conduct. All students of the University community have the responsibility to comply with these regulations. The responsibility for the enforcement of the Code rests with the President of Southern Illinois University at Carbondale or that officer's designees. The effective date for this Code is June 9, 1986.

**D. Jurisdiction**

The University community has a responsibility to provide its members those privileges, opportunities, and protections which encourage and maintain an environment conducive to educational development. Accordingly, this Code shall apply to (1) conduct occurring on property owned or controlled by the University, and (2) conduct occurring elsewhere, but only if the student's conduct has substantially interfered with the University's educational functions, including, but not limited to, interference with the educational pursuits of students, faculty, or staff or conduct having its origins in the educational process.

When a student has been apprehended for violation of a law the University will not request special consideration because of the individual's status as a student. The University will cooperate fully with law enforcement and other agencies administering a corrective or rehabilitative program for the student. The University reserves the right to initiate concurrent disciplinary action.

Academic dishonesty violations in the School of Law will be adjudicated through that unit's Professional Ethics Policy. Academic dishonesty violations in the School of Medicine will be adjudicated through that unit's Student Progress System. Law students and medical students on the Carbondale campus charged with other violations of the Code will be treated as any undergraduate and graduate student. In addition, law students charged with violations of social misconduct may also be charged under the School of Law's Professional Ethics Policy and medical students on the Carbondale campus charged with violations of social misconduct may also be charged under the School of Medicine's Student Progress System.

**E. Definitions**

1. "Academic officer" means any Instructor, Department Chairperson, Dean, Director, or Coordinator.
2. "Adjudication" means the resolution of disciplinary charges, including the appeal process.
3. "Admission" means admission, readmission, re-entry, registration, and re-registration as a student in any educational program at the University.
4. "Appeal" means a process for reviewing an earlier decision.
5. "Board" means the Board of Trustees of Southern Illinois University.
6. "Charge" means an accusation of a violation of the Student Conduct Code of Southern Illinois University at Carbondale.
7. "Code" means the Student Conduct Code for Southern Illinois University at Carbondale.
8. "Days" means all days when classes are in session.
9. "Formal" disciplinary procedures are disciplinary procedures used when the question of guilt is contested or when the student accepting responsibility for the disciplinary charges prefers to have a full hearing on the sanction.
10. "Informal" disciplinary procedures are disciplinary procedures used when the question of guilt is not contested and the student prefers to have an immediate decision on the sanction.
11. "Instructor" means any teaching assistant or member of the faculty.
12. "Members of the University Community" means the members of the Board of Trustees, employees, and registered students of Southern Illinois University at Carbondale.



13. "President" means that individual appointed by the Board as the chief executive, administrative, and academic officer of Southern Illinois University at Carbondale and any person authorized or directed by the President to act on that officer's behalf.
14. "Sanction" means a measure imposed on account of violation(s) of the Code.
15. "Student" means any person registered for, enrolled in, or auditing one or more classes.
16. "University" means Southern Illinois University at Carbondale.
17. "University official" means any individual authorized or directed by the President or that officer's designee to perform any delegated function.
18. "Violation" means a breach of conduct governed by the Code. The standard of proof used shall be a preponderance of the evidence.

## II. Violations

### A. Acts of Academic Dishonesty

1. Plagiarism: Representing the work of another as one's own work.
2. Preparing work for another that is to be used as that person's own work.
3. Cheating by any method or means.
4. Knowingly and willfully falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or scholarly experiment or research.
5. Knowingly furnishing false information to a University official relative to academic matters.
6. Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this Code.

### B. Acts of Social Misconduct

1. Violence
  - a. Rape
  - b. Physical Abuse
  - c. Direct threat of violence
  - \*d. Harassment
  - e. Intimidation
  - f. Intentional obstruction or substantial interference with any person's right to attend or participate in any University function.
  - g. Participation in any activity to disrupt any function of the University by force or violence
  - h. Reckless behavior representing a danger to person(s)
2. Property Damage
  - a. Arson
  - b. Willful or malicious damage or destruction of property
  - c. Reckless behavior representing a danger to property
3. Weapons (unauthorized possession and/or use)
  - a. Firearms
  - b. Explosives and/or explosive devices
  - c. Any type of arms defined as weapons in Chapter 38 of the Illinois Revised Statutes
  - d. Pellet guns and B-B guns
  - e. Fireworks
4. Disobedience
  - a. Disobedience, interference, resistance, or failure to comply with direction of an identified University official acting in the line of duty.



- b. Trespassing
  - c. Unauthorized entry
- 5. Deception
  - a. Furnishing false information to the University with intent to deceive
  - b. Forgery, alteration, or misuse of University documents, records, and identification cards
  - c. Forgery or issuing a bad check with intent to defraud
- 6. Theft
  - a. Misappropriation or conversion of University funds, supplies, equipment, labor, material, space, or facilities
  - b. Possession of stolen property
- 7. Safety
  - a. Intentionally entering false fire alarms
  - b. Bomb threats
  - c. Tampering with fire extinguishers, alarms, or safety equipment
  - d. Tampering with elevator controls and/or equipment
  - e. Failure to evacuate during a fire, fire drill, or false alarm
- 8. Cannabis or Controlled Substances (as defined in Chapter 56 1/2 of the Illinois Revised Statutes)
  - a. Manufacture
  - b. Sale or delivery
  - c. Unauthorized possession and/or use
- 9. Hazing (as defined in Chapter 144 of the Illinois Revised Statutes)
- 10. Abusive or disorderly conduct
- 11. Violations of University Housing regulations
- 12. Violations of other duly promulgated University policies or regulations, including but not limited to, alcohol, demonstrations, pets, smoking, solicitation, and guidelines for access to data and programs stored on the computer, will be adjudicated under this Code.
- 13. Acts Against the Administration of this Code
  - a. Initiation of a complaint or charge knowing that the charge was false or with reckless disregard of its truth
  - b. Interference with or attempt to interfere with the enforcement of this Code, including but not limited to, intimidation or bribery of hearing participants, acceptance of bribes, dishonesty, or disruption of proceedings and hearings held under this Code.
  - c. Knowing violation of the terms of any disciplinary sanction or attached conditions imposed in accordance with this Code.
- 14. Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this Code.
 

\*Charges of sexual harassment may be adjudicated under the University Sexual Harassment Policy.

### III. Sanctions

The following are sanctions which may be imposed for a violation of this Code. Also, a condition may accompany a sanction. Conditions include, but are not limited to, restitution of damages, work projects, required counseling or therapy, required academic performance, etc. A condition may include loss of certain university privileges. If a condition accompanies a sanction, the condition must be related to the violation.

- A. Failure of an assignment, quiz, test, examination, or paper
 

A failing grade (F) may be assigned for the work in connection with which the violation occurred.

**B. Failure in a course**

A failing grade (F) may be assigned for the course in which the violation occurred.

**C. Disciplinary Reprimand**

In cases of minor violations and when the violation is acknowledged by the student, a written reprimand may be issued by the Dean for Student Life or that officer's designee upon the recommendation of a University official. The purpose of the reprimand shall be to call to the student's attention the responsibility of meeting certain minimal community standards. Since a reprimand is given only when the violation is acknowledged the sanction may not be appealed.

**D. Disciplinary Censure**

Disciplinary censure is a written warning to the student that the cited behavior is not acceptable in the University community and that further misconduct may result in more severe disciplinary action. The student may appeal the finding of a violation but may not appeal the severity of the sanction.

**E. Disciplinary Probation**

Disciplinary probation removes a student from good disciplinary standing. The probation shall last for a stated period of time and until specific conditions, if imposed, have been met. Any misconduct during the probationary period will bring further disciplinary action and may result in suspension. Probationary status prevents the student from representing the University in some extracurricular activities and may result in the loss of some types of financial assistance.

**F. Disciplinary Suspension**

Disciplinary suspension is an involuntary separation of the student from the University for a stated period of time and until a stated condition, if imposed, is met after which readmission will be permitted. Disciplinary suspension is entered on the student's transcript for the duration of the suspension.

**G. Indefinite Suspension**

Indefinite suspension is an involuntary separation of the student from the University for an unprescribed period of time and until a stated condition, if imposed, is met. Any consideration for readmission requires a written petition to the appropriate administrative official before readmission will be considered. The indefinite suspension is entered on the student's transcript for the duration of the suspension.

**H. Interim Separation**

If the President or that officer's designee has reasonable cause to believe that a serious and direct threat to the safety and well-being of the members and/or property of the University community will be present if an individual is permitted to remain an active member of the community an interim separation may be imposed. A preliminary hearing or the opportunity for a preliminary hearing shall be afforded. If it is impossible or unreasonably difficult to conduct a preliminary hearing prior to the interim separation the individual shall be afforded the opportunity for such a preliminary hearing at the earliest practical time. The purpose of the preliminary hearing is to determine if there is justification to invoke an interim separation. During the preliminary hearing, the student will be provided a statement of the reasons for interim separation and will be afforded an opportunity to rebut. Interim separation is temporary and shall be enforced only until the completion of a full disciplinary hearing. A full disciplinary hearing shall be provided within a reasonable period of time.



#### **IV. Policies and Procedures Applicable to Academic Dishonesty**

##### **A. Judicial Structure**

###### **1. Department Level**

The Chairperson shall have initial jurisdiction over complaints of academic dishonesty and may adjudicate the case if the student accepts responsibility for the violation(s).

###### **2. College/School Level**

a. Each Dean has the responsibility for the formal resolution of charges against a student. For the purposes of administering this code, the Graduate School Dean shall operate at the level of other deans.

b. Charges of falsifying information on applications for admission shall be adjudicated by the Director of Admissions and Records. The Director of Admissions and Records, for the purposes of administering this Code, shall operate at the level of other Deans.

c. When social misconduct is also involved in an incident(s) of academic dishonesty, the Dean shall charge the student with all violations. All charges shall be adjudicated under the provisions for academic dishonesty.

###### **3. Presidential Level**

This level has jurisdiction to hear appeals.

##### **B. Informal Disciplinary Procedures**

###### **1. Informal Hearing**

In cases where the student admits to a violation of the Code relating to academic dishonesty the matter may be adjudicated at the department level. An informal discussion between the instructor and the student shall be held. If the student admits in writing to a violation of the code, the instructor shall recommend in writing a sanction to the department chairperson. The chairperson shall meet with the instructor and the student, receive the acknowledgement of responsibility from the student, receive the recommendation from the instructor, and apprise the student of the sanction.

###### **2. Sanctions**

The full disciplinary history of the student shall be considered in determining the sanction. Sanctions which may be imposed when the student accepts responsibility for the conduct are:

a. The student may be removed from the class immediately.

b. The student may be assigned a failing grade for the work and/or course.

c. The student may be placed on disciplinary probation.

d. Any combination of the above.

e. The department chairperson may recommend to the Dean that the student be suspended from the University.

###### **3. Notification**

The department chairperson shall send written verification of the sanction(s) to the student. Such notification will normally be sent within five days of the meeting with the instructor and the student.

###### **4. Appeal**

The student may appeal the severity of the sanction or failure to follow prescribed procedure, pursuant to IV C 8. A student may not appeal the question of guilt.

##### **C. Formal Disciplinary Procedures**



1. Initiation of a Complaint

- a. Any member of the University community may initiate disciplinary proceedings by filing a complaint within twenty days of discovery of an alleged violation of the Student Conduct Code. The complaint must be made in writing with all available evidence attached. The complaint shall be filed with the department chairperson in the unit in which the alleged violation occurred.
- b. The department chairperson shall make a preliminary review of the complaint. If there are no grounds for disciplinary charges the complainant shall be notified. If the complainant wishes to proceed with a disciplinary charge a written request must be submitted to the appropriate academic dean within ten days of the receipt of the notification. The Dean shall review the request, the complaint, and the department chairperson's decision and decide whether to pursue formal charges.

2. Formal Charges

In cases of alleged academic dishonesty where guilt is disputed by the student, as well as whenever there has been a recommendation from the department chairperson for suspension, the case will be adjudicated at the Dean's level with a formal hearing. The Dean shall notify the student in writing regarding the charge(s) as well as the date, time, and place of the hearing. The notification will be considered to have been delivered if the notice is sent to the current local address of the student as provided to the Office of Admissions and Records by the student. Thus, failure to notify the University of changes of address could result in a hearing being held *in absentia*.

3. Formal adjudication

- a. The student has the right to:
  - (1) Be apprised of all evidence.
  - (2) Hear and question available witnesses. Sworn statements will be accepted from those persons unable to attend the hearing.
  - (3) Not be compelled to offer evidence which may be self-incriminating.
  - (4) Receive a written decision specifying judicial actions.
  - (5) Appeal the decision, pursuant to IV C 8.
- b. The student has the option to have:
  - (1) Advisory assistance. The responsibility for selecting an advisor is placed on the charged student. The advisor may be any individual except a principal in the hearing. The advisor shall be limited to advising the student and shall not participate directly in the hearing.
  - (2) An open or closed hearing.
  - (3) Have witnesses testify in his/her behalf. Sworn statements shall be accepted from those persons unable to attend the hearing. Character witnesses may be excluded by the hearing agent.
- c. Hearing agent  
The charged student may submit a preference for a hearing before a judicial board or the Dean or his/her designee. The Dean shall decide the hearing agent.

4. Judicial Hearing Agents

- a. Judicial Board Directives

- (1) Size  
A judicial board shall be comprised of seven members. A quorum required to conduct a hearing shall be five members. A decision shall be reached by majority vote.
  - (2) Membership
    - (a) Student members shall meet the following standards:
      - (i) Fulltime as defined by the Director of Admissions and Records.
      - (ii) Good disciplinary standing since matriculation.
      - (iii) Minimum grade point average of 2.5 (undergraduate); 3.0 (graduate); or professional student in good standing.

NOTE: Fulltime University employees who are enrolled in classes may not serve as student members. Graduate assistants and student workers in the department in which the incident occurred shall be excluded from judicial boards.
    - (b) Faculty members may include any person under faculty appointment, excluding administrators.
    - (c) All appointments shall be reviewed by the Office of the Dean for Student Life to ensure that candidates meet the minimal requirements. A list of judicial board members will be available upon request within the office of the academic dean.
  - (3) Judicial Board Operating Papers  
Each judicial board may develop its own operating paper. Each operating paper shall be reviewed by the office of the Dean for Student Life to ensure consistency with the provisions of this Code.
  - (4) Administrative Advisors  
Each judicial board shall have an administrative advisor from the Office of Student Life. The advisor's role shall be limited to providing guidance and clarification. The advisor shall sit with the panel in both open and executive sessions.
  - (5) Terms  
Each judicial board shall be in session for twelve weeks during the fall and spring terms and for four weeks during the summer term. A board is not expected to meet during the first two nor the last two weeks of a term. Disciplinary cases shall be adjudicated by an administrative hearing officer when a board is not in session or is defunct.
  - (6) Powers  
A judicial board shall make a decision of guilt or innocence and shall make a recommendation on the sanction to the Dean.
- b. Administrative Hearing Officer  
The administrative hearing officer shall be the academic dean or that officer's designee.
5. Judicial Hearings
    - a. Time limitations
      - (1) A student electing formal adjudication shall have a minimum of five days written notice prior to a hearing.
      - (2) A student shall have five days after receiving notification of the decision in which to submit an appeal.
    - b. Failure to appear



Initial jurisdiction hearings shall be held *in absentia* when the charged student fails to appear. An appeal shall be dismissed when the student fails to appear.

- c. Tape recordings  
All formal judicial hearings shall be tape recorded. After the appeal period has expired the tape may be erased.
  - d. Challenge for cause  
A student may challenge panel members for cause. The decision to remove a panel member will be made by the other panel members.
  - e. Peremptory challenge  
A student may challenge one panel member without assigning any cause. A peremptory challenge will be automatically honored by the chair of the panel.
  - f. Confidentiality  
All evidence, facts, comments, and discussion at a closed hearing and all executive sessions shall be held in strict confidence. Failure to maintain confidentiality may result in removal of judicial board members by the dean.
6. Sanctions  
A student's disciplinary history shall have no bearing on the question of guilt or innocence. If, however, a student is found to be in violation of the Code, the full disciplinary history shall be considered in determining the sanction. The academic dean shall request the student's disciplinary record from the Student Life Office. The academic dean and the Dean for Student Life shall develop lines of communication to keep each other apprised of a student's disciplinary history for this purpose. Sanctions which may be imposed are:
- (1) The student may be assigned a failing grade for the work and/or course.
  - (2) The student may be placed on disciplinary probation.
  - (3) The student may be suspended from the University.
  - (4) Any combination of the above.
7. Notification  
The Dean shall send written notification of the decision of the hearing and sanction(s) to the student. Such notifications will normally be sent within five days of receipt of the judicial board's recommendation or within five days of the administrative hearing.
8. Appeals  
Any disciplinary determination or sanction involving academic dishonesty may be appealed from the dean's level by submitting an application for appeal to the Vice President for Academic Affairs and Research within five days after receiving notification of the prior decision. However, the right of appeal does not guarantee that an appeal will be granted nor does it entitle the student to a full rehearing of the case. An appeal hearing, if granted, will be limited to the issues set forth in subparagraph c. below.
- a. The student may submit a preference for an appeal hearing before a judicial board or an administrative hearing officer. The Vice President for Academic Affairs and Research shall decide the hearing agent.
  - b. The burden of proof at the initial jurisdiction level is on the University. At the appeal level, however, the student bears the burden of demonstrating error as defined in the following item (c).



- c. Three issues constitute possible grounds for an appeal:
  - (1) Were judicial procedures correctly followed?
  - (2) Did the evidence justify a decision against the student?
  - (3) Was the sanction(s) imposed in keeping with the gravity of the violation? Previous violation(s) of the Code and the accompanying sanction(s) will be considered in determining a proper sanction for a current violation.
- d. The appropriate committee of the judicial board or the administrative hearing officer will review the appeal to ascertain whether there are sufficient grounds for a hearing.
- e. If an appeal hearing is granted the agent hearing the appeal will not rehear the case. The agent will limit its review to the specific points of the appeal that were accepted at the screening review.
- f. The agent hearing the appeal may:
  - (1) Affirm the decision(s) of the initial jurisdiction.
  - (2) Affirm the decision(s) and reduce the sanction.
  - (3) Modify the decision(s) of violation and reduce the sanction.
  - (4) Reverse the decision(s) of violation, remove the sanction, and dismiss the case.
- g. A student dissatisfied with the decision on appeal may seek review by the President by submitting such a request in writing within five days after receiving notification of the prior decision. Review by the President shall also be limited to the issues specified in subparagraph c. above.
- h. Further appeal may be made to the Board of Trustees by filing an application for appeal in accordance with Article VI Section 2 of the Board of Trustees Bylaws. The Board of Trustees will review only those administrative decisions which meet the requirements for review established by the Board's Bylaws.
- 9. Implementation of Sanction(s)
  - a. The disciplinary sanction(s) shall be implemented when:
    - (1) The student has waived the right of appeal, or
    - (2) The appeal period has expired.
  - b. The sanction shall be as specified by the final adjudicating agent.
  - c. A student separated from the University for disciplinary reasons is subject to the normal guidelines for tuition and fee refunds, grades, and financial penalties for terminating a housing contract.
  - d. Following the implementation of the sanction, all records relating to the case will be filed with the Dean for Student Life.
- 10. Exceptions
 

The above procedures shall be followed unless an exception is authorized in writing by the Vice President for Academic Affairs and Research. All requests for temporary exceptions shall be submitted in writing to the Vice President. Any exception allowed shall be limited to individual cases and shall not infringe upon a student's right to written notice, opportunity for a hearing, and an appeal.

## **V. Policies and Procedures Applicable to Social Misconduct**

### **A. Judicial Structure**

#### **1. Unit Level**

A case may be resolved informally by a University official in a department/office as authorized by the Dean for Student Life, pur-

- suant to V B 1. All cases in which guilt is disputed shall be referred to the Student Life Office.
2. **Campus Level**  
The Campus Judicial Board for Discipline and/or the Coordinator of Student Discipline has initial jurisdiction over social misconduct not handled by other offices. The campus level also shall hear appeals from the unit level.
  3. **Presidential Level**  
This level has jurisdiction to hear appeals.
- B. Informal Disciplinary Procedures**
1. **Informal Hearing**  
In cases where the student accepts responsibility for the social misconduct the matter may be adjudicated at the departmental/office level. An informal discussion between the University official and the student shall be held. If the student accepts responsibility for the charge(s) the University official shall recommend a sanction to the Coordinator of Student Discipline.
  2. **Sanctions**  
The full disciplinary history of the student shall be considered in determining the sanction. The University official may recommend to the Coordinator of Student Discipline any of the following sanctions:
    - a. Disciplinary reprimand
    - b. Disciplinary censure
    - c. Disciplinary probation
    - d. Disciplinary suspension
    - e. Indefinite suspension
    - f. Interim suspension
  3. **Notification**  
The Coordinator of Student Discipline shall send written verification of the sanction to the student within five days of the receipt of the recommendation.
  4. **Appeals**  
A student may appeal the severity of the sanction pursuant to V C 9 or failure to follow prescribed procedure. A student may not appeal the question of guilt.
- C. Formal Disciplinary Procedures**
1. **Initiation of a Complaint**
    - a. Any member of the University community may initiate disciplinary proceedings by filing a complaint with the Coordinator of Student Discipline within twenty days of the discovery of an alleged violation of the Student Conduct Code. The complaint must be in writing with all available evidence attached.
    - b. The Coordinator of Student Discipline shall make a preliminary review of the complaint. If there are no grounds for disciplinary charges or if the complaint should be processed under another policy the complainant shall be notified. If the complainant wishes to proceed with a disciplinary charge a written request must be submitted to the Dean for Student Life within ten days of the receipt of the notification. The dean shall review the request, the complaint, and the Coordinator of Student Discipline's decision and decide whether to pursue formal charges.
  2. **Formal Charges**  
In cases of alleged social misconduct when guilt is disputed by the student, the case will be adjudicated at the appropriate level with a formal hearing. The Coordinator of Student Discipline shall no-



tify the student in writing regarding the charge(s) as well as the date, time, and place of the hearing. The notification will be considered to have been delivered if the notice is sent to the current local address of the student provided to the Office of Admissions and Records by the student. Thus, failure to notify the University of changes of address could result in a hearing being held *in absentia*.

3. Fact-Finding Conference

The Coordinator of Student Discipline shall conduct a fact-finding conference which shall include the charged student and may include the complainant and/or witnesses. Matters to be examined at the fact-finding conference are:

- a. The charge(s) filed against the student.
- b. The evidence against the student.
- c. The witnesses, if any, that shall testify.
- d. The provisions of the Student Conduct Code.
- e. Whether to continue disciplinary procedures.
- f. The student may elect to acknowledge the violation(s) at the fact-finding conference and have a decision made on the sanction by the Coordinator of Student Discipline at the fact-finding conference. If this option is chosen the student may appeal only the severity of the sanction.
- g. The student may elect to have a formal hearing scheduled in the future.
- h. If the student fails to make an appointment for or fails to keep a scheduled appointment for a fact-finding conference the case may automatically be referred to the appropriate hearing agent for a hearing.

4. Formal Adjudication

- a. The student has the right to:
  - (1) Be apprised of all evidence.
  - (2) Hear and question available witnesses. Sworn statements will be accepted from those persons unable to attend the hearing.
  - (3) Not be compelled to offer evidence which may be self-incriminating.
  - (4) Receive a written decision specifying judicial actions.
  - (5) Appeal the decision, pursuant to V C 9.
- b. The student has the option to have:
  - (1) Advisory assistance. The responsibility for selecting an advisor is placed on the charged student. The advisor may be any individual except a principal in the hearing. The advisor shall be limited to advising the student and shall not participate directly in the hearing.
  - (2) An open or closed hearing.
  - (3) Witnesses testify in his/her behalf. Sworn statements shall be accepted from those persons unable to attend the hearing. Character witnesses shall be excluded.
- c. Hearing agent

The charged student may submit a preference for a hearing before a judicial board or an administrative hearing officer. The appropriate University official may decide the hearing agent.

5. Judicial Hearing Agents

a. Judicial Board Directives

(1) Size

A judicial board shall be comprised of seven members. A



quorum required to conduct a hearing shall be five members. A decision shall be reached by majority vote.

(2) Membership

(a) Student members shall meet the following standards:

- (i) Fulltime as defined by the Director of Admissions and Records.
- (ii) Good disciplinary standing since matriculation.
- (iii) Minimum grade point average of 2.5 (undergraduate); 3.0 (graduate); or professional student in good standing.

NOTE: Fulltime University employees who are enrolled in classes may not serve as student members.

(b) Faculty members may include any person under faculty appointment, excluding administrators.

(c) All appointments shall be reviewed by the office of the Dean for Student Life to ensure that candidates meet the minimal requirements. A list of judicial board members will be available upon request within the office of the Dean for Student Life.

(3) Judicial Board Operating Papers

Each Board may develop its own operating paper. Each operating paper shall be reviewed by the Office of the Dean for Student Life to ensure consistency with the provisions of this Code.

(4) Administrative Advisors

Each judicial board shall have an administrative advisor from the Office of Student Life. The advisor's role shall be limited to providing guidance and clarification. The advisor shall sit with the panel in both open and executive sessions.

(5) Terms

Each judicial board shall be in session for twelve weeks during the fall and spring terms and for four weeks during the summer term. A board is not expected to meet during the first two nor the last two weeks of a term. Disciplinary cases shall be adjudicated by an administrative hearing officer when a board is not in session or is defunct.

(6) Powers

A judicial board shall make a decision of guilt or innocence and shall make a recommendation on the sanction to the appropriate administrator.

b. Administrative Hearing Officer

An administrative hearing officer appointed by the Dean for Student Life shall be available at all levels to adjudicate disciplinary cases.

6. Judicial Hearings

a. Time Limitations

- (1) A student electing formal adjudication shall have a minimum of five days written notice prior to a hearing.
- (2) A student shall have five days after receiving notification of the decision in which to submit an appeal.

b. Failure to appear

Initial jurisdiction hearing shall be held *in absentia* when the charged student fails to appear. An appeal shall be dismissed when the student fails to appear.

c. Tape recordings

All formal judicial hearings shall be tape recorded. After the appeal period has expired the tape may be erased.

d. Challenge for cause

A student may challenge panel members for cause. The decision to remove a panel member will be made by the other panel members.

e. Peremptory challenge

A student may challenge one panel member without assigning any cause. A peremptory challenge will be automatically honored by the chair of the panel.

f. Confidentiality

All evidence, facts, comments, and discussion at a closed hearing and all executive sessions shall be held in strict confidence. Failure to maintain confidentiality may result in administrative removal of judicial board members by the Dean for Student Life.

7. Sanctions

A student's disciplinary history shall have no bearing on the question of guilt or innocence. If, however, a student is found to be in violation of the Code, the full disciplinary history shall be considered in determining the sanction. The Dean for Student Life shall request the student's disciplinary records from the academic dean. The academic dean and the Dean for Student Life shall develop lines of communication to keep each other apprised of the student's disciplinary history for this purpose.

Sanctions which may be imposed are:

- a. Disciplinary reprimand
- b. Disciplinary censure
- c. Disciplinary probation
- d. Disciplinary suspension
- e. Indefinite suspension
- f. Interim separation

8. Notification

The Coordinator of Student Discipline shall send written notification of the decision of the hearing and sanction(s) to the student. Such notification will normally be sent within five days of receipt of the judicial board's recommendation or within five days of the administrative hearing.

9. Appeals

Any disciplinary determination or sanction involving social misconduct may be appealed to the next level in the judicial structure by submitting an application for appeal in writing to the Dean for Student Life or the Vice President for Student Affairs, as appropriate, within five days after receiving notification of the prior decision. However, the right of appeal does not guarantee that an appeal will be granted nor does it entitle the student to a full rehearing of the case. An appeal, if granted, will be limited to the issues set forth in subparagraph c. below.

- a. The student may submit a preference for an appeal hearing before a judicial board or an administrative hearing officer. The appropriate university official shall decide the hearing agent.
- b. The burden of proof at the initial jurisdiction level is on the University. At the appeal level, however, the student bears the burden of demonstrating error as defined in the following item (c).
- c. Three issues constitute possible grounds for an appeal:



- (1) Were judicial procedures correctly followed?
- (2) Did the evidence justify a decision against the student?
- (3) Was the sanction(s) imposed in keeping with the gravity of the violation? Previous violation(s) of the Code and the accompanying sanction(s) will be considered in determining a proper sanction for a current violation.
- d. The appropriate committee of the judicial board of the administrative hearing officer will review the appeal to ascertain whether there are sufficient grounds for a hearing.
- e. If an appeal hearing is granted the agent hearing the appeal will not rehear the case. The agent will limit its review to the specific points of the appeal that were accepted at the screening review.
- f. The agent hearing the appeal may:
  - (1) Affirm the decision(s) of the initial jurisdiction.
  - (2) Affirm the decision(s) and reduce the sanction.
  - (3) Modify the decision(s) of the violation and reduce the sanction.
  - (4) Reverse the decision(s) of violation, and remove the sanction, and dismiss the case.
- g. A student dissatisfied with the decision of the Vice President for Student Affairs may seek review by the President by submitting such a request in writing within five days after receiving notification of the prior decision. Review by the President shall also be limited to the issues specified in subparagraph c. above.
- h. Further appeal may be made to the Board of Trustees by filing an application for appeal in accordance with article VI section 2 of the Board Bylaws. The Board of Trustees will review only those administrative decisions which meet the requirements for review established by the Board's Bylaws.
10. Implementation of Sanction(s)
  - a. The disciplinary sanction(s) shall be implemented when:
    - (1) The student has waived the right of appeal, or
    - (2) The appeal period has expired.
  - b. The sanction shall be as specified by the final adjudicating agent.
  - c. A student separated from the University for disciplinary reasons is subject to the normal guidelines for tuition and fee refunds, grades, and financial penalties for terminating a housing contract.
  - d. Any type of disciplinary separation from the University may be accompanied by a condition which bars the student from University property.
11. Exceptions
 

The above procedures shall be followed unless an exception is authorized in writing by the Dean for Student Life. All requests for temporary exceptions shall be submitted in writing to the Dean for Student Life. Any exception allowed shall be limited to individual cases and shall not infringe upon a student's right to written notice, opportunity for a hearing, and an appeal.

## VI. Amending Procedures

### A. Review and/or Revisions

At the request of any recognized constituency, the Vice President for Academic Affairs and Research, or the Vice President for Student Af-



fairs, the President or that officer's designee shall appoint a committee to consider amendments to this Code. The committee shall consist of two undergraduate students, one graduate student, two faculty members, one academic dean, one representative from the University Housing Office, one representative from the Student Life Office, and an ex officio representative from the Legal Counsel Office. The student and faculty members shall be designated by their appropriate constituencies. The Vice President for Student Affairs shall appoint a chairperson for the committee who may be one of the members listed above.

B. Amendments

The President may propose to the Chancellor amendments to the Code. Whenever the circumstances allow, due consideration shall be given to the recommendations of the committee provided for in the preceding paragraph. Amendment will be accomplished by the regular procedures for amendment of University policy.

C. Notification

Any amendment of the Code shall become effective only after general notice of such change has been given to the student body, faculty, and administrative staff. General notice shall include, but not be limited to, public notification of approved amendments twice successively published in the *SIU Courier* and the *Daily Egyptian* in their entirety within seven days after approval of said amendments by the Chancellor.

# 3 Academic Programs

## Degrees Offered

Southern Illinois University at Carbondale grants the following degrees:

### ASSOCIATE

Associate in Applied Science

### BACCALAUREATE

Bachelor of Arts

Bachelor of Fine Arts

Bachelor of Music

Bachelor of Science

### ADVANCED

Master of Accountancy

Master of Arts

Master of Business Administration

Master of Fine Arts

Master of Music

Master of Public Affairs

Master of Science

Master of Science in Education

Master of Social Work

Specialist Degree

Doctor of Business Administration

Doctor of Philosophy

Doctor of Rehabilitation

In addition to the above degrees, the University offers undergraduate courses in preprofessional areas.

The School of Law and the School of Medicine offer professional degrees. Information about the School of Law may be obtained by writing the dean, School of Law, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. Information about the School of Medicine may be obtained by writing the dean, Southern Illinois University School of Medicine, P.O. Box 3296, Springfield, Illinois 62708.

For information concerning academic programs on the advanced degree level, refer to the Graduate Catalog or write the dean, Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

## Degree Requirements

### Associate Degree

Each candidate for an associate degree must complete a minimum of 60 hours of credit in approved courses. Each student must maintain a *C* average. In addition to the technical courses each program requires certain General Education courses

to be taken. The degree-granting unit for the associate degree is the School of Technical Careers.

## Baccalaureate Degree

Each candidate for a bachelor's degree must complete the requirements listed below.

*Hour Requirements.* Each student must have earned a minimum of 120 semester hours of credit, although some programs may require more. Of the 120 hours, at least 60 must be earned at a senior-level institution. All credit granted may be applied toward the 60-hour requirement unless the credit has specifically been designated as being from a community college. Credit for work experience, CLEP, military credit, and proficiency examination credit awarded by an accredited senior-level institution are counted toward the 60-hour requirement. GE-D 106 cannot be counted in the 120 hours required for graduation.

*Residence Requirements.* Each student must complete the residence requirement by taking the last year, which is defined as 30 semester hours, or by having three years of credit, which is defined as 90 semester hours at Southern Illinois University at Carbondale. Only credit for those courses for which the student has registered and for which a satisfactory grade has been recorded at Southern Illinois University at Carbondale may be applied toward the residence requirement hours. Students enrolled in programs offered for the military will have completed the residence requirement for the University upon completion of all courses required by the program.

*Average Requirements.* Each student must have a *C* average for all work taken at Southern Illinois University at Carbondale and a *C* average for all major work taken at the University.

The University has adopted a policy for students whose only graduation problem concerns the *C* average for all work taken at the University. Such students may ask that the average be computed by one of the following methods: (1) by excluding from calculation of the grade point average a maximum of ten semester hours of *D* or *F* grade earned outside the major which was taken prior to the last 60 semester hours of completed work at the University or, (2) by earning a grade point average of 2.10 or higher for the last 60 semester hours of work completed at the University. The student will be graduated if the average meets either of the two alternatives. It should be noted that the two alternatives are offered as a means of computing the grade point average for graduation only and may not be used for any other purpose.

*Course Requirements.* Each student must meet the University requirements and the requirements of the academic unit, the major, and the minor, if required. The General Education requirements which are explained later in this chapter total 45 semester hours of credit although there are methods available to reduce the number for certain students. The requirements of each academic unit are also listed in this chapter, while the requirements for the specific major and minor programs are explained in Chapter 4.

### Second Bachelor's Degree

A student may earn a second bachelor's degree upon completion of a minimum of 30 hours, making a total of 150 hours minimum, provided the student fulfills the requirements of the department and college or school for the second bachelor's de-



gree. Students pursuing a second baccalaureate degree must meet the General Education requirements of 45 semester hours if the department or school or college so requires. Students may, however, complete a second bachelor's degree under the Capstone Program if the department offers this option for the first baccalaureate degree. If a student's first bachelor's degree is from another university, 30 hours in residence is required to fulfill the requirements for the second bachelor's degree. If the first bachelor's degree was earned at the University, a minimum of 10 semester hours of the 30 required must be taken in residence at the University.

**Preprofessional Programs**

Preprofessional students may, subject to certain conditions, obtain a bachelor's degree after three years' work (90 semester hours) at Southern Illinois University at Carbondale and one or more year's work in a professional school. During their three years of residence at the University, they need to have completed all requirements other than elective hours for the bachelor's degree which they are seeking.

In some cases the completion of major requirements is possible by their taking certain courses at the professional school, but this is permitted only upon the prior approval of the appropriate divisional head. Also, completion of at least one year of professional school with acceptable grades in an approved medical school, an approved dental school, an approved veterinary school, an approved law school, an accredited physical therapy school, a hospital plan approved by the University or an accredited school of osteopathy is required. In all cases, all University graduation requirements must be met. It is advisable for a student interested in this program to make the decision to seek a bachelor's degree before entering the professional school so that any questions may be clarified at an early date.

The 3/2 program of the College of Business and Administration is available to qualified transfer students and students majoring in areas other than business. The program permits a student to devote a part or all of the fourth year of study to fulfilling requirements for the Master of Business Administration degree. For details, contact the associate dean for graduate studies in business administration.

**General Education Requirements**

The University believes in a strong, well-rounded general education for all students which includes a common core of knowledge. It has, therefore, established General Education course requirements which serve as the general education requirements for all baccalaureate degrees. The University also recognizes that not all students have the same interests or goals so the General Education requirements provide for flexibility in making course selections to fulfill requirements. The descriptions for the General Education courses are listed at the beginning of Chapter 4 of this bulletin.

- Area A: Our Physical Environment and Biological Inheritance . . . . . 9
  - Core: Select one 3-hour course from each of the following two groupings
    - 1. GE-A 101 or GE-A 106 or GE-A 110
    - 2. GE-A 115 or GE-A 117 or GE-A 118
  - Elective: One additional course selected from any other courses offered in GE-A
- Area B: Our Social Inheritance and Social Responsibilities . . . . . 9
  - Core: Select one 3-hour course from two of the following three groupings
    - 1. GE-B 103 or GE-B 104 or GE-B 105
    - 2. GE-B 211 or GE-B 212
    - 3. GE-B 108 or GE-B 202
  - Elective: One additional course selected from any other courses offered in GE-B
- Area C: Our Insights and Appreciations . . . . . 9

Core: Select one 3-hour course from two of the following three groupings

1. GE-C 100 or GE-C 101
2. GE-C 102 or GE-C 208
3. GE-C 122 or GE-C 330

Elective: One additional course selected from any other courses offered in GE-C

Additional coursework from areas A, B, or C. . . . . 3  
Students must complete a total of 30 semester hours in Areas A, B, and C. Within each area, they must complete a minimum of 9 semester hours with the required distributions. The remaining three semester hours may be selected from any coursework offered in areas A, B, or C or from the approved substitution list which has not already been counted for General Education.

Area D: Organization and Communication of Ideas . . . . . 11

Composition: GE-D 101 and GE-D 117, GE-D 118, or GE-D 119. . . 5

(GE-D 101 must be completed with a grade of C or better)

GE-D 120, if completed with a grade of C or better, will also complete the composition requirement.

Speech: GE-D 152 or GE-D 153. . . . . 3

Mathematics: GE-D 107 . . . . . 3

Mathematics 114 will also complete the mathematics requirement. GE-D 106 cannot be used to fulfill Area D requirements.

Area E: Human Health and Well Being. . . . . 4

GE-E 107 or GE-E 201 or GE-E 236. . . . . 2

Two hours selected from physical education activity courses offered in GE-E . . . . . 2

*Total* . . . . . 45

Some programs and upper division academic units require specific General Education courses, particularly in English composition. A student may determine these requirements by referring to program descriptions in this chapter and in Chapter 4.

#### MEETING GENERAL EDUCATION REQUIREMENTS

These requirements may be met by any of the following, subject to the rules and limitations appropriate to each means.

1. Completion of appropriate General Education courses (listed at the beginning of the next chapter) with a satisfactory grade;
2. Proficiency credit by examination for General Education courses or approved substitute courses. Substitutions for General Education courses are limited to 15 hours.
3. Proficiency credit via General Examinations of the College Level Examination Program or Advanced Placement Examinations of the College Board (See Program Flexibility in Chapter 2);
4. Transfer credit for courses evaluated as equivalent to General Education courses or approved substitute courses; and
5. Completion of departmental courses listed as substitutions for General Education courses. (See List of Approved Substitutions below.)

General Education courses are offered at the 100, 200, and 300 levels. Few of these courses have specific prerequisites, and a student may decide when to enter a given level. Academic advisers can provide the student with appropriate information about individual General Education courses.

Beginning students are not restricted to enrolling in only General Education courses; the student who has selected a major is assisted in determining the proper courses to take by consulting curriculum guides obtained from an academic adviser.

*List of Approved Substitutions.* The department courses which have been ap-



proved as substitutions for General Education courses are listed below. In no case does the departmental course substitute for more credit hours than the credit hours allowed in the comparable General Education course.

GENERAL EDUCATION COURSE	APPROVED SUBSTITUTES
GE-A 101-3	One of: Physics 203, 205 or 3 semester hours of technical physics.
GE-A 106-3	One of: Chemistry 115, 140, 222, or 4 semester hours of technical chemistry
GE-A 110-3	Geology 220
GE-A 115-3	One of: Biology 306, 308, 309
GE-A 117-3	Botany 200
GE-A 202-3	Physics 203b or 205b
GE-A 240-3	Biology 307
GE-A 330-3	Military credit for meteorology
GE-A unassigned-3, 6, 9	Three, six, or nine semester hours from University Honors 251a and/or 351a
GE-B 103-3	Geography 300
GE-B 211-3	One of: Agribusiness Economics 204; Economics 214, 215
GE-B unassigned-3, 6, 9	Three, six, or nine semester hours from University Honors 251b and/or 351b
GE-C 100-3	Music 101, or 3 hours of 102, 013, 014, 017, 020, 021, 022
GE-C 101-3	Art 100
GE-C 204-3	Art 207
GE-C-Elective Area	A student with a full year or its equivalent of study in a single foreign language may substitute up to four semester hours in General Education Area C.
GE-C unassigned-3, 6, 9	Three, six, or nine semester hours from University Honors 251c and/or 351c
GE-A/B/C unassigned-3	Three semester hours for University Honors 251a/b/c or 351a/b/c
GE-D 101-3	Linguistics 101
GE-D 107-3	One of: Mathematics 108, 109, 111, 114, 116, 117, 139, 140, 150, 151, 159, 250, 259, or 4 semester hours of technical mathematics at the level of intermediate algebra
GE-D 117-2	Linguistics 102
GE-D 118-2	One of: Management 202, Linguistics 103, or 2 semester hours of technical writing
GE-E 101-114-1 to 4	Four semester hours from: Physical Education 115, 116, 117, 118, 119, 120, 170
GE-E unassigned-1 to 2	One to 2 semester hours from University Honors 251e and/or 351e
GE-E activity-1 to 2	ROTC field training
GE-E 201-2	Health Education 350

A maximum of 15 semester hours of comparable course work can be substituted for General Education requirements, with the exception of approved University Honors substitutions.

*Flexibility and Other Features.* The University believes in a strong, well-rounded general education program but does not accept the idea that every student must take the same course or program in meeting the objectives. Therefore, considerable latitude is permitted the student in meeting the objectives; alternate routes are provided within the General Education framework.



Accommodations to differences in student background, interest, and aspirations include:

1. Substitutions to a maximum of 15 hours of approved departmental courses can be made for General Education courses as previously outlined;
2. Proficiency examinations are offered regularly for some General Education courses; students should consult with their academic advisers for information concerning these examinations;
3. A University Studies Program (See Chapter 4) allows the students to design a broad undergraduate education.

*The Transfer Student and General Education.* A transfer student who expects to graduate from the University with a baccalaureate degree must meet the General Education requirements as outlined previously. All work done at other institutions will be evaluated and comparable courses will be applied toward the General Education requirements.

Completion of an associate degree in a baccalaureate-oriented program in an accredited Illinois two-year institution, provides that the student will (a) be accepted with junior standing and (b) be considered to have completed the General Education requirements. Associate degrees earned at other than Illinois two-year institutions will be reviewed by the Office of Admissions and Records. If the degree is determined to be baccalaureate-oriented, the same benefits will be extended to those graduates. Credit from an accredited two-year institution is limited only by the provision that students must earn at least 60 semester hours of work at the University or at any other approved four-year institution and must complete the residence requirements for a degree from the University.

Additional information concerning admission of a transfer student and the evaluation of transfer credit can be found in the sections of this catalog pertaining to those specific subjects.

### Capstone Program

The Capstone Program is for the transfer student who has earned an Associate in Applied Science degree or the equivalent certification and whose needs can be met within one of the participating departments. It is a two-year program that gives maximum credit for previous academic and work experiences in the student's occupational field. The Capstone Program's purpose is to provide an opportunity for students to add to the marketable occupational skills and competencies which they have already acquired.

Key features of the Capstone Program are: (1) It is for selected occupational students who have changed their educational and occupational goals; (2) It is an alternative baccalaureate degree program involving no more than two additional years of college at a four-year institution; (3) It seeks to recognize similar objectives in both two-year occupational programs and four-year baccalaureate degree programs; (4) It seeks to recognize similar objectives in certain work experiences and in four-year baccalaureate degree programs; and (5) It provides a unique opportunity for developing secondary and post-secondary occupational teachers who possess strong work experience and training in a variety of technical specialties and sub-specialties.

The Capstone Program at Southern Illinois University at Carbondale can lead to the baccalaureate degree in any of the following areas:

#### School of Agriculture

Agribusiness Economics  
Agricultural Education  
Agricultural Education and  
Mechanization  
Agriculture, General

#### Animal Industries

Food and Nutrition  
Plant and Soil Science  
College of Education  
Business Education  
Child and Family

Clothing and Textiles  
Home Economics Education  
Occupational Education  
College of Human Resources  
Administration of Justice  
College of Engineering and  
Technology  
Industrial Technology  
College of Liberal Arts  
Paralegal Studies for Legal  
Assistants

School of Technical Careers  
Aviation Management  
Career Development  
Consumer Economics and  
Family Management  
Electronics Management  
Fire Science Management  
Health Care Management

The listing of majors which participate in the Capstone Program may change from time to time.

REQUIREMENTS FOR THE BACCALAUREATE DEGREE THROUGH CAPSTONE

A student completing the degree through the Capstone Program must complete the hour requirements, residence requirements, and average requirements required for all bachelor's degrees. These requirements are explained at the beginning of this chapter. The course requirements for the Capstone Program are explained below.

The following General Education requirements must be satisfied:

Science.....	6 semester hours
Social Science.....	6 semester hours
Humanities.....	6 semester hours
Health and Physical Education.....	3 semester hours
English Composition.....	one course
Mathematics.....	one course
Speech.....	one course
Minimum Total.....	30 semester hours

In addition to the General Education requirements, the student must complete the requirements specified in a contract to be developed between the student and the academic unit or department representative. The contract must include two years of work (60 semester hours) after receiving the associate degree or equivalent certification and must list the remaining requirements for the baccalaureate degree.

PROCEDURES FOR APPLYING TO THE CAPSTONE PROGRAM

- In order to qualify for admission to the Capstone Program, the student must:
1. Have made application for admission to Capstone by not later than the end of the first semester in the bachelor's degree program. A student registered in a program in which Capstone is not available who changes to a program which does participate must submit the Capstone application by no later than the end of the first session in the new bachelor's program. The student who has been approved for Capstone in one program who changes to another program which also participates in Capstone must receive approval of the new program for continued participation in Capstone by not later than the end of the first semester in the new program.
  2. Have earned an associate degree in a non-baccalaureate-oriented program of 60 semester hours or equivalent certification, prior to the completion of the first term in the baccalaureate program at Southern Illinois University at Carbondale. Equivalent certification, for the purposes of Capstone admission, is defined as the formal completion of a technically oriented program of two years duration (60 semester hours), resulting in the receipt of an equivalent associate degree, certificate, diploma, or other documentation as provided by the student's educational institution.
  3. Have submitted all documentation of work used for the associate degree by



no later than the end of the second semester or session at the University. The documentation includes all official transcripts from institutions previously attended and may include test reports, evaluation of military experience or whatever other kind of training has been used to award the associate degree.

4. Have earned a minimum grade point average of 2.25 (4.0 scale) as calculated by the University grading regulations. An applicant denied admission to Capstone as a result of a low average upon completion of the associate degree may not be considered again after raising the average in subsequent work (credit beyond the associate degree).

5. Have entered a bachelor's degree program at the University which participates in the Capstone Program.

6. Have received certification from the academic unit at the University that a bachelor's degree program can be completed within the 60 semester hours of additional work required for the bachelor's degree. The certification will be determined after the Capstone application has been filed.

Copies of the application for admission to the Capstone Program are available in the Office of Admissions and Records.

## Academic Units and Programs Offered

### School of Agriculture

JAMES A. TWEEDY, *Dean*

Departments: Agribusiness Economics; Agricultural Education and Mechanization; Animal Industries; Forestry; Plant and Soil Science

The School of Agriculture offers the following majors leading to the Bachelor of Science degree.

Agribusiness Economics	Animal Industries
Agricultural Education	Food and Nutrition
Agricultural Education and Mechanization	Forestry
Agriculture, General	Plant and Soil Science

It is recommended that high school students who are planning to pursue one of the above majors include the following in their high school program: four units of English, two to four units of mathematics (algebra, geometry, advanced mathematics); two to three units of science (biology, chemistry, physics); and two to three units of social studies. For prospective agriculture majors or food and nutrition majors, high school classes in agriculture or home economics respectively are beneficial but are not specifically required.

For transfer students wishing to pursue a major in one of the agricultural, food and nutrition or forestry areas, courses taken prior to entering the University should include a distribution in the physical and biological sciences, social sciences, and humanities. In addition, a course in speech and appropriate sequences in English composition and college algebra should be included. A potential transfer student who has already identified a major for the bachelor's degree may select with greater precision the courses which will be transferred by consulting the curriculum for that major in Chapter 4.

A student planning to take preprofessional courses in veterinary science should register in the School of Agriculture's four-year curriculum in animal industries.

Qualified candidates for the Capstone Program are accepted with major in agribusiness economics, agricultural education, agricultural education and mechani-



zation, animal industries, general agriculture, food and nutrition, and plant and soil science. The Capstone Program is described earlier in this chapter.

Of the recent graduates of the School of Agriculture, about 35% have been employed in private industry, about 20% have entered farming or farm management and about 15% have been employed in each of: government (federal, state, county, and city); education or extension; graduate study or professional schooling.

School of Agriculture students come from both rural and urban homes. Approximately 30% are women. Students who elect any one of the eight majors in the School of Agriculture are counseled and advised for registration in the school. Graduates receive the Bachelor of Science degree.

The Agriculture Building houses the offices, classrooms, and laboratories for the agriculture and forestry programs. The food and nutrition program has offices, classrooms, and laboratories in Quigley Hall. Other research and teaching facilities include over one-third acre of greenhouses plus 2,000 acres of farm and timberland.

## College of Business and Administration

THOMAS G. GUTTERIDGE, *Dean*

Departments: Accountancy; Finance; Management; Marketing

The College of Business and Administration aims to prepare students to perform successfully in business and other organizations such as government and other not-for-profit organizations functioning within a changing social, economic, and political environment. Study provides the student with fundamental principles and practices of organizational behavior and allows the mastering of knowledge and skills for effective management. The curriculum provides a broad base for understanding business while simultaneously allowing in-depth study within an area of concentration. Students find that the professional education they receive in the college is desired by business, governmental units, and other public institutions. The advanced curriculum and related programs provide students not only with a meaningful education but with a means of relating that education to organizations and commerce.

The College of Business and Administration offers the following majors leading to the Bachelor of Science degree.

Accounting	Finance
Business and Administration	Management
Business Economics	Marketing

Any student, whose personal and professional goals cannot be met by any of the majors listed above, may design a special major in accordance with the University guidelines which are fully described in Chapter 4 of this catalog.

While minors are not offered, academic advisers of the college will assist and counsel those students enrolled in other units of the University having an interest in electing business courses.

All programs offered in the College of Business and Administration are accredited by the American Assembly of Collegiate Schools of Business.

The College of Business Administration offices are located in Henry J. Rehn Hall, and the classes are conducted in various buildings throughout the campus.

*Pre-College Preparation.* High School and preparatory school students are urged to follow a program which includes at least three units of both English and mathematics, with a substantial portion of the remainder of their study programs devoted to such academic subject areas as humanities, the sciences, and social studies.

*Transferred Credits in Business Courses.* Subject to the University's policies regarding acceptance of transferred credits, the college accepts college-level credit earned in business and economics courses from accredited two- or four-year institutions of higher education and counts such credit toward the 120 semester hours required for graduation. However, if such courses are offered at the lower division (freshman and sophomore) level at the institution where completed, only those courses shown below will be treated as equivalencies to college- or departmental-required courses.

<i>Subject</i>	<i>Hours</i>
Principles of accounting .....	6
Cost accounting .....	3
Economic principles .....	6
Business economics statistics.....	3
(where college algebra is a prerequisite)	
Basic computer courses <sup>1</sup> .....	3

<sup>1</sup>Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: FORTRAN, BASIC, COBOL, PASCAL, RPG, PLI, or ALGOL. Courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.

Additionally, three semester hours of introduction to business and three semester hours of business law (contracts and agency) completed at the lower division level are acceptable in satisfaction of department requirements, in those programs where these courses are required.

Students also have the opportunity of validating additional coursework and nothing in the above statement abridges a student's right to satisfy graduation requirements by proficiency (or competency) examinations. Such examinations are treated as a student right by the college and are available for most courses.

*Admission Policy.* The admission policy for the College of Business and Administration became effective summer, 1986, and applies to all students who enroll at Southern Illinois University at Carbondale after May, 1986.

**Freshmen:** beginning freshmen must rank in the top ten percent of their high school graduating class and have an ACT standard composite score of 21 or rank in the top half of their high school graduating class and have an ACT standard composite score of at least 24 to be eligible for immediate admission to majors offered by the College of Business and Administration. New freshmen who do not meet these requirements but do fulfill regular University admissions requirements will be admitted to the university with a pre-business major classification.

**Transfer students:** transfer students who have completed fewer than twenty-six semester hours must meet the admissions requirements of beginning freshmen and must have earned a collegiate grade point average of 3.0 (4.0 scale) to be admitted directly to a major in the College of Business and Administration. Students who have completed more than twenty-six hours but fewer than fifty-six hours must have earned a grade point average of 3.0 to be admitted directly to a major in the College of Business and Administration. Students who have completed fifty-six hours or more must have earned an overall grade point average of 2.2 and completed all nine of the College of Business and Administration's reten-



tion courses with an average of 2.0 in those courses to be admitted to a major in the College of Business and Administration. It is necessary also that seven of the retention courses be completed with a grade of C or better. The nine retention courses or the equivalencies are: GE-D 101; GE-B 202; Mathematics 116 and 117 or 139 and 140; Economics 214; Accounting 220 and 230; Management 208; and Computer Science 212 or Computer Information Processing 229.

Students who do not meet these requirements but meet regular University admission requirements will be admitted to the University with a pre-business classification.

A student's grade point average is determined by calculating all collegiate grades earned including repeated courses.

**International students:** international students must meet admission requirements comparable to those of native students. While admission credentials such as ACT scores and class ranks are not generally submitted by international students, students do submit credentials which reflect their achievements in subject areas such as English and mathematics. Therefore, beginning international students and transfer students with less than twenty-six semester hours will be required to submit records which reflect very good achievements in these disciplines in order to be admitted immediately to a business major. International transfer students who have earned twenty-six semester hours to fifty-five semester hours of transfer credit will be required to have a 3.0 or comparable grade point average to be admitted to the college. International students who have earned fifty-six semester hours or more must have a 2.2 overall grade point average or equivalent and have successfully completed the college retention policy as described for domestic transfer students before they will be permitted to take upper division business courses.

Students who fulfill minimum University admissions requirements but do not meet the requirements for entrance to a business major will be admitted with a pre-business classification. These students must satisfy the requirements previously described for native students in order to transfer to a business major.

**Southern Illinois University at Carbondale students:** students who are currently enrolled or were previously enrolled at the University in a major outside the College of Business and Administration may request admission to a business program. They may be admitted to degree programs in business if they meet the requirements for beginning freshmen or transfer students. Students who do not meet new freshmen or transfer requirements may be granted admission with a pre-business classification provided they have an overall 2.0 average at the University.

**Pre-business classification:** those beginning freshmen and transfer students admitted to the University with a pre-business classification may request admission to a College of Business and Administration degree program when:

1. They have earned an overall average of 2.2;
2. They have completed at least fifty-six semester hours;
3. They have completed the College of Business and Administration's nine retention courses with an average of 2.0 in those courses. Seven of the courses must be completed with a grade of C or better.

Pre-business students enrolled at the University requesting admission to a degree program must complete an application for admission to the College of Business and Administration major. Students applying for spring must apply by October 1 of the preceding year, for summer by March 1 preceding the summer, and for fall by March 1 preceding the fall.



Because interest in business classes continues to be exceedingly high, it may be necessary to close admission to selected business majors without advance notice.

***Retention Policy.*** In order to continue enrollment in a major offered by the College of Business and Administration, students must maintain a 2.2 Southern Illinois University at Carbondale cumulative grade point average. Students must also complete the following nine courses with an overall *C* average, before attaining junior status (56 semester hours). It is also necessary for students to have completed with a grade of *C* or better seven of these nine courses. The nine retention courses or the equivalencies are GE-D 101; GE-B 202; Mathematics 116 or 139 and 117 or 140; Economics 214; Accounting 220 and 230; Management 208; and Computer Science 212 or Computer Information Processing 229. Students who have completed 42 semester hours or more without completing at least six of the prescribed nine courses will be subject to termination from the college.

***Grade Point Average Requirement.*** Graduation from the College of Business and Administration requires achievement of a 2.00 grade point average in all business-prefix (ACCT, ECON, FIN, MGT, MKTG) courses offered at Southern Illinois University at Carbondale. Accounting majors are subject to the additional requirement of achieving a grade of *C* or better in accounting-prefix (ACCT) courses completed at the University. Business courses may only be taken three times. This is, if a course is failed, a student has two additional attempts to pass the course. Students may not repeat courses in which they have earned a grade of *C* or better.

***Pass/Fail Policy of the College.*** Business majors may not register on a Pass/Fail basis for courses used to satisfy requirements in the College of Business and Administration.

***Course Sequencing.*** It is of the utmost importance that required courses be sequenced properly. Sequencing guides are available from the college's academic advisement center and are published in the College of Business and Administration's *Student Information Manual*. Courses on the 300 to 400 levels are reserved for junior and seniors.

***Forty Percent Rule.*** At least 40% of the coursework of all business majors must be devoted to courses offered outside the College of Business and Administration; at least 40%, to courses offered by the College of Business and Administration.

***Multiple Majors in Business.*** Business majors may choose to complete two or more of the six majors offered by the college. While all requirements of each major must be satisfied, this can usually be accomplished through judicious use of electives without extending anticipated graduation dates beyond one semester. All majors will be noted on the diploma issued on completion of the Bachelor of Science degree.

***Special Majors.*** Students with special interests or needs which cannot be met by any of the majors offered by the college may participate in designing their own programs under the special major program. Examples of such programs include those designed to prepare graduates for careers such as managers of airports, hospital administrators, and business consultants. To support a growing trend among students to utilize the special major to prepare themselves for careers in small business management, the college has added to its offerings such courses as Finance 350, Management 350, and Marketing 350. Special major programs must be coherent and unified and have as a sponsor a member of the teaching faculty of

the college. All Southern Illinois University at Carbondale and college requirements must be met.

*General Education Courses Prescribed for Business Majors.* Students in the College of Business and Administration must complete the General Education requirements of the University. The following courses are required and will count toward partial fulfillment of General Education requirements:

- GE-B 202
- Economics 214 to substitute for GE-B 211
- GE-D 101
- Mathematics 139 or 116 to substitute for GE-D 107
- GE-D 152 or 153
- Management 202 to substitute for GE-D 118

*Professional Business Core.* The professional business core, required of all College of Business and Administration students, is comprised of the following courses:

Courses	Semester Hours
Accounting 220, 230 .....	6
Management 202 <sup>1</sup> , 208, 304, 318, 481 .....	(3) <sup>1</sup> + 12
Computer Course <sup>2</sup> .....	3
Economics 214 <sup>1</sup> , 215 .....	(3) <sup>1</sup> + 3
Finance 330, 370 <sup>3</sup> .....	6
Marketing 304, 305 .....	6
Mathematics 116 <sup>1</sup> or 139 <sup>1</sup> and 117 <sup>4</sup> or 140 <sup>4</sup> .....	(3) <sup>1</sup> + 4-7
Total .....	40-43

<sup>1</sup>See General Education courses prescribed for business majors.  
<sup>2</sup>Computer coursework completed at other universities and colleges will be accepted as transfer credit for the College of Business and Administration core computer requirement if that course is designed to teach one and only one of the following languages: FORTRAN, BASIC, COBOL, PASCAL, RPG, PL1, or ALGOL. Courses that survey numerous languages are not acceptable. Further, coursework with emphasis on unit record or data processing equipment will not be considered equivalent to the college's computing requirement. Acceptable coursework should have a one-language base and present the student with advanced programming concepts, e.g., loops, arrays, etc.  
<sup>3</sup>The combination of Finance 280 and 380 may be substituted for 370.  
<sup>4</sup>Mathematics 150 may be substituted for 140 or 117.

# College of Communications and Fine Arts

KEITH R. SANDERS, *Dean*

Departments: Cinema and Photography; Communication Disorders and Sciences; Radio-Television; Speech Communication; Theater  
Schools: Art; Journalism; Music

The College of Communications and Fine Arts offers the Bachelor of Arts degree in the following majors or specializations within majors:

- |                            |                              |
|----------------------------|------------------------------|
| Art (some specializations) | Music (some specializations) |
| Cinema and Photography     | Radio-Television             |
| Design                     | Theater                      |

The Bachelor of Science degree is awarded in other majors or specializations within majors:

- |                                      |                      |
|--------------------------------------|----------------------|
| Art (some specializations)           | Journalism           |
| Communication Disorders and Sciences | Speech Communication |

The Bachelor of Fine Arts degree is awarded for some specializations in the School of Art.



The Bachelor of Music degree is awarded for some specializations in the School of Music.

Additional information about the majors offered in the College of Communications and Fine Arts is offered elsewhere in this bulletin. Students who are considering enrollment in a major should read the section on curriculum. Admission to the University is handled through the Office of Admissions and Records, but those students who desire more specific information about a major should make an appointment with an academic adviser of that department or school. Each department or school of the college has one or more individuals who will advise prospective students about major requirements, curriculum, activities, careers, and opportunities. Transfer students may also discuss transfer credit and placement in courses at Southern Illinois University at Carbondale.

A student with special personal and professional goals which cannot be met by one of the traditional majors is encouraged to consider the resources available within the college and university and design a special major. Requirements and guidelines are listed elsewhere under *Special Major*.

Faculty of the college are engaged in research/creative activities concerning communications and the arts. They also provide consulting service and other community services to schools, newspapers, radio and television stations, museums, arts centers, businesses, and governments. They hold professional memberships and serve as officers in various local, state, national, and international organizations in the communications media and in the arts. A number of special events are presented each year, including lectures by noted artists, music performances, dramatic presentations, art and photography exhibits, and film showings.

The Broadcasting Service and the University Museum are also part of the college. The Broadcasting Service operates WSIU (FM), a public radio station, and WSIU (TV), channel 8, a public television station, both located in Carbondale. It also operates a second public television station, WUSI (TV), channel 16, at Olney. The University Museum serves the college and the campus community and surrounding area through its active exhibit program and its cooperative ventures with other academic units.

Administrative offices of the college are located in the Communications Building, which includes the McLeod Theater along with broadcasting facilities, film production facilities, and the office of the *Daily Egyptian*.

## College of Education

DONALD L. BEGGS, *Dean*

Departments: Curriculum, Instruction, and Media; Educational Administration and Higher Education; Educational Psychology; Health Education; Physical Education; Recreation; Special Education; Vocational Education Studies

The College of Education offers the following programs<sup>1</sup> leading to the Bachelor of Science degree:

Agricultural Education	English
Art	French
Biological Sciences	Geography
Business Education	German
Chemistry	Health Education
Child and Family	History
Clothing and Textiles	Home Economics Education
Communication Sciences	Language Arts (English and
and Disorders	Reading)
Early Childhood Education	Mathematics
Elementary Education	Music



Occupational Education  
Physical Education  
Physics  
Political Science  
Recreation

Secondary Education<sup>2</sup>  
Social Studies  
Spanish  
Special Education  
Speech Communication  
Zoology

<sup>1</sup>In addition to programs offered almost entirely within the College of Education, certain programs are offered in cooperation with the College of Liberal Arts (e.g., English), or with the College of Communications and Fine Arts (e.g., art, music), School of Agriculture (agricultural education), and the College of Science (e.g., biological sciences, chemistry).

<sup>2</sup>This is not an academic major. Persons planning to teach in secondary schools should refer to the curriculum, instruction, and media section of this catalog for a listing of academic majors and minors.

Preparation of teachers at all levels and in all areas of instruction in the public schools from preschool education through high school is the special function of the College of Education. In its graduate offerings the efforts of the College of Education include professional work for prospective college teachers and administrators and several specializations in elementary and secondary school administration and supervision.

For most undergraduate students preparing to teach in high schools, the subject-matter courses will be taken in the other colleges and schools of the University, and the professional preparation for teaching, including student teaching, will be taken in the College of Education. Graduates of the College of Education receive the Bachelor of Science degree.

Students who wish to become principals or supervisors in the public schools take graduate work in the Department of Educational Administration and Higher Education. The department's major emphasis is on the graduate work, but it also participates in providing background for elementary and high school teachers. Likewise, students wishing to pursue a career in teaching or administration in colleges and universities take graduate work in the department. The department does not offer an undergraduate major in higher education, but it provides courses for undergraduate credit providing a broad background in higher education for elementary and high school teachers.

The College of Education, housed in the Wham Education Building, is the oldest unit of the University, which was originally chartered as Southern Illinois Normal University.

### Teacher Education Program

Southern Illinois University at Carbondale is fully accredited by the National Council for Accreditation of Teacher Education (NCATE) and by the State Teacher Certification Board, Springfield. The teacher education program is an all-university function administered by the dean of the College of Education. An advisory committee composed of faculty and students serves in a recommending capacity to the dean.

Teacher education programs, approved by the State Teacher Certification Board, are offered in elementary education, early childhood education, early childhood-preschool education, special education, secondary education majors and minors, and in majors which lead to the special certificate to teach K-12. The special education major offers specializations in education of the behaviorally disordered, education of the mentally retarded, and education of the learning disabled.

Only those students who complete an approved teacher education program are recommended for certification and may receive a teaching certificate through the entitlement process. Further information and procedures for receiving the certificate are explained below under Certification.

### ADMISSION POLICY

The College of Education admission policy shall be the same as that of the University. All qualified new students are admitted to the College of Education with a

specific departmental major classification or as an unclassified student. The same policy applies for reentering students.

#### RETENTION POLICY FOR TEACHER EDUCATION PROGRAM

Advancement to the teacher education certification program requires that the following specific criteria be met.

A student is eligible to make formal application to the program with:

1. A minimum of 30 semester hours of completed work including Education 201;
2. An overall grade point average of at least 2.50 (4.0 scale);
3. Completion of GE-D 101 and GE-D 117, 118, or 119, and one additional English course (GE-C or Department of English) with a grade of C or better;
4. An ACT score of 20 or SAT score of 950. Conditional admission will be granted to students who do not meet SAT or ACT standards on the basis of the following: Completion with a minimum grade of C since entering ninth grade including work taken in college of 1) four years of English and communication skills. Each three semester hour college composition or writing course equates to one year of high school English. At least three of the four years must be English; 2) two years of mathematics sufficient to include the course content of algebra I. Computer science courses may not be used to satisfy any part of this requirement; 3) two years of science. Courses from either the physical or biological sciences will be accepted toward this requirement; 4) two years of social studies;
5. Three letters of recommendation from college or university faculty.

Applications must be submitted in person and must be accompanied by verification that all prerequisites have been met. Students are responsible for submitting high school transcripts to the Office of Teacher Education at the time of application. Applications received through the mail will not be considered. Application forms, as well as information about the teacher education program, are available from the coordinator of teacher education services in the Office of Teacher Education in Wham Education Building, room 135. Students are encouraged to investigate the feasibility of applying for a particular teaching field early in their undergraduate careers by contacting their adviser or the department in which they wish to specialize.

If a student's application is approved after being reviewed by the coordinator of teacher education services, the student is issued a membership card which entitles the student to begin work in the basic professional education courses which are prerequisite to the professional semester of student teaching. At the end of the first semester of membership, the department offering the student's major is requested to submit a recommendation as to whether or not the student should be retained in the program. Criteria for this recommendation are available from the department or the student's adviser. Failure to obtain approval prohibits the student from continuing with the professional education courses and could lead to suspension from the program. In order to remain in the program and complete the requirements for graduation and teacher certification, the student must attain a 2.50 grade point average in the major and receive departmental approval. Both of these requirements must be met before final clearance can be given for a student teaching assignment.

Students who are not able to meet the criteria of the teacher education program or their major department will be counseled about alternative programs.

*Collegiate Warning and Dismissal in Teacher Education Program.* Students who do not achieve an accumulative 2.25 grade point average in their major in any semester are subject to collegiate warning. Students who are on collegiate warning and do not earn a 2.25 grade point average in courses required by their major



in a subsequent semester will be placed in a status of collegiate dismissal. Students registered in other colleges who are in the Teacher Education Program who do not meet this requirement will be dismissed from the Teacher Education Program. A student who has been placed on collegiate dismissal may seek transfer to another program if the student has an overall grade point average at Southern Illinois University at Carbondale of 2.00 and is in good academic standing. Students who are placed on collegiate dismissal and have less than an overall 2.00 for work completed at the University but have not been suspended from the University will be placed in Undergraduate Academic Services.

DEGREE REQUIREMENTS

In addition to general education and major requirements, each degree candidate in a teacher education program must complete the course requirements listed below:

- 1. Four semester hours in health and physical education by taking GE-E 201 and two hours of GE-E 100-114. These courses should be selected as a part of the general education requirements.
- 2. A course in American history or government (GE-B 212 or 301 recommended.)
- 3. The United States and State of Illinois constitution examinations requirement. This requirement for continuing certification in Illinois may be met by taking GE-B 212 or 301, or History 300; by taking a course in American history or political science other than GE-B 212 or 301 or History 300 and passing the constitution test administered by the University; or by presenting written notification from another institution that a course in American history or government has been passed and that the tests have been passed on the constitutions of the United States and the State of Illinois.
- 4. GE-B 202 as a prerequisite for Education 301 in the professional education sequence. GE-B 202 should be selected as a part of the general education requirements.
- 5. GE-D 101 and GE-D 117, 118, or 119, and one additional English course (GE-C or English department) with a grade of C or better in each of the last two courses completed. This requirement is a prerequisite to admission to the professional semester.
- 6. The professional education sequence listed below. Each of the courses which are part of the program prior to the professional semester must be completed with a grade C or better as a prerequisite to admission to the professional semester. Students must receive a grade of C or better in Education 400 and 401 to receive the institutional recommendation for certification. Education 201 must be completed prior to admission to the teacher education program.

<i>Professional Education Sequence</i> .....	25
Decision Component	
Education 310 .....	1
Basic Professional Block	
Education 311 .....	2
Education 314a,b. ....	3
Education 315 .....	3
Education 316 .....	2
Professional Semester <sup>1</sup>	
Education 317 .....	2
Education 400 .....	4
Education 401 .....	8

<sup>1</sup>Concurrent registration in Education 317, 400, and 401 is required during the professional semester.



7. Illinois State Teacher Certification Board general education course distributions in: language arts, science, mathematics, social science, humanities, health, and physical education. Students having questions concerning whether their programs meet certification board requirements should discuss their concerns with their academic advisers.

## Certification

A student who is nearing completion of the teacher education program (usually during the last semester) can obtain the forms to make application for entitlement to certification for the State of Illinois from the Office of Teacher Education, Wham Education Building, Room 135. Upon completion of the application forms by the student, the certification staff will process the forms. When the student's program, including graduation clearance, is completed, the office will mail the completed forms to the student's permanent address for use in applying for certification through the student's future educational service region superintendent.

The State of Illinois issues through the entitlement process the Standard Elementary Certificate, Standard High School Certificate, Standard Special Certificate, or Early Childhood-Preschool Certificate to students who graduate from an approved teacher education program at the University.

*Standard Elementary Certificate.* Students planning to teach on the elementary level in the public schools of Illinois register in the College of Education. Requirements for entitlement to the State of Illinois standard elementary certificate may be through the completion of the early childhood (K-3) education program or the elementary education (K-9) program. For further information concerning these programs, see the sections of this catalog titled curriculum, instruction, and media and professional education experiences in Chapter 4.

*Standard High School Certificate.* Requirements for entitlement to the State of Illinois standard high school certificate and for entitlement to the standard special certificate may be met as explained in the section of this catalog titled curriculum, instruction, and media in Chapter 4. A listing of majors, minors, and other programs approved for certification entitlement purposes at Southern Illinois University at Carbondale is presented there. It is possible for a student to be registered in one of the colleges or schools other than the College of Education and to meet the state requirements for the standard high school certificate or the standard special certificate by using as electives certain prescribed professional education requirements in the College of Education.

*Standard Special Certificate.* Teaching all grades, kindergarten through grade 12, requires the standard special certificate. As noted above, requirements for entitlement to the standard special certificate may be met in the manner outlined in the section of this catalog titled curriculum, instruction, and media in Chapter 4. Teaching fields for which the standard special certificate is issued include physical education, special education, music, art, and speech pathology and audiology (now communication disorders and sciences).

*Early Childhood-Preschool Certificate.* Students planning to teach at the pre-school level in public schools or other settings in Illinois register in the College of Education. The early childhood-preschool program was specifically designed to prepare future teachers of pre-kindergarten children. For further information concerning the program, see the section of the catalog titled curriculum, instruction, and media in Chapter 4.

# College of Engineering and Technology

KENNETH E. TEMPELMEYER, *Dean*

Departments: Civil Engineering and Mechanics; Electrical Engineering; Mechanical Engineering and Energy Processes; Mining Engineering; Technology

The College of Engineering and Technology offers the following majors leading to the Bachelor of Science degree:

Engineering with specializations in: engineering mechanics and thermal and environmental engineering

Civil Engineering

Electrical Engineering

Engineering Technology with specializations in civil engineering technology, electrical engineering technology, and mechanical engineering technology.

Industrial Technology with specializations in manufacturing technology and mining technology

Mechanical Engineering

Mining Engineering

Specific requirements are listed for the various majors in the next chapter. Three basic academic programs: engineering, engineering technology, and industrial technology serve students who have different career goals.

*Engineering.* Engineering is the profession in which knowledge of the mathematical and natural sciences gained by study, experience and practice is applied with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of people. Engineers are primarily concerned with the design and fabrication of new products and structures, converting new ideas into reality, the practical solution of human problems, and pushing back the frontiers of technical knowledge. Students of engineering should have interests and skills in mathematics and science and possess a high interest in problem solving.

*Engineering Technology.* Engineering technology is that part of the technological field in which engineering knowledge and scientific methods are combined with hands on technical skills to support engineering activities. It lies in the occupational spectrum between that of the technician and the engineer with specific responsibilities depending upon the nature of the training and requirements of the job but lying more closely to engineering. Graduates are prepared to deal with technical and production problems, and to apply their knowledge to such activities as development, design, construction, maintenance and operational problems.

*Industrial Technology.* Industrial technology is a management-oriented technical profession that is built upon a sound knowledge and understanding of materials, processes, technical management, and human relations; and a proficiency level in the physical sciences, mathematics, and technical skills to permit the graduate to capably resolve technical-managerial and production problems. Graduates of this program are prepared for positions in processes, safety, quality control, supervision, robotics, methods analysis, and computer-aided manufacturing.

## Admission Policy

The following requirements apply to students seeking admission to civil engineering, electrical engineering, mechanical engineering, and mining engineering and



to engineering with specializations in engineering mechanics and thermal and environmental engineering. They do not apply to students applying for admission to engineering technology or industrial technology.

#### FRESHMEN

Beginning freshmen must rank in the top quarter of their high school graduating class and have an ACT standard composite score of 18 to 22 or rank in the top half of their graduating class and have an ACT composite score of 23 or higher. In addition, students must have completed prior to high school graduation the following courses before they will be allowed to enroll in an engineering major: three years of English (a fourth year is recommended); three and one-half years of mathematics in which there are two years of algebra, one year of geometry, and one-half year of trigonometry and two years of science of which it is recommended there is one year of chemistry and one year of physics.

Students who do not meet these requirements but do meet the regular University admission requirements will be admitted with a pre-engineering classification with the opportunity to transfer to an engineering program once they have satisfied the conditions stated in the section titled Pre-Engineering Classification. These students may alternatively be admitted directly to one of the technology programs in the college but cannot change their major to engineering until they have satisfied the requirements for transfer students as stated below.

#### TRANSFER STUDENTS

Transfer students including students registered at Southern Illinois University at Carbondale with other majors who have completed fewer than twenty-six semester (thirty-nine quarter) hours must have an overall *C* average and meet the admission requirements of beginning freshmen. Students who have completed twenty-six semester hours or more and have an overall average of 2.40 will also be admitted into an engineering program. (NOTE: for a period of time, it may be necessary for the Department of Electrical Engineering to require an average higher than 2.40 before approving transfer and pre-engineering students to enter this program.)

Students who have completed twenty-six to sixty semester hours and have a grade point average between 2.0 and 2.39 will be admitted with a pre-engineering classification. These students should submit their high school records and ACT scores to the Office of Admissions and Records at the time they apply for admission. Students who have completed twenty-six to sixty semester hours and have a grade point average between 2.0 and 2.39 may be admitted in special cases to an engineering program by one of the engineering departments. Such a student, however, may not transfer to another engineering department without consent of that department.

Students who have earned more than sixty semester hours and have less than a 2.40 average will not be considered for admission to an engineering program. These students should seek admission to another program of study at Southern Illinois University at Carbondale. They may qualify for admission to an engineering program at a later time by completing work at Southern Illinois University and improving their overall grade point average to a 2.40.

A transfer student's grade point average is determined by computing all earned grades including repeated courses.

#### PRE-ENGINEERING CLASSIFICATION

Students who have been placed in a pre-engineering classification because they have not completed the high school courses required for direct admission to an engineering program will be transferred to an engineering program when the high school prerequisite courses have been satisfied by taking courses at the University.



Students admitted with a pre-engineering classification may request transfer to an engineering program after they have earned at least twenty-six semester hours at the University with grade point average of 2.40 or greater. (NOTE: For a period of time, it may be necessary for the Department of Electrical Engineering to require an average higher than 2.40 before approving transfer and pre-engineering students to enter this program.) In addition, at least twelve of the twenty-six hours must have been earned in engineering, mathematics, and pre-requisite science courses which are required for graduation from an engineering program at the University.

Students in the pre-engineering classification who have completed twenty-six to sixty semester hours and have a 2.0 through 2.39 grade point average may, in special cases, be admitted to an engineering program in one of the engineering departments. Such students may not transfer to another engineering department without approval of that department chairperson.

Pre-engineering students who have earned less than a 2.40 average after completing sixty or more semester hours and who cannot be admitted by a department as a special case will be transferred to Undergraduate Academic Services or may seek entrance to another collegiate unit provided their overall Southern Illinois University at Carbondale grade point average is 2.0. Students transferred from the pre-engineering classification may seek readmission to the College of Engineering and Technology only after they have attained an overall average of 2.40. (Note: For a period of time, it may be necessary for the Department of Electrical Engineering to require an average higher than 2.4 before approving transfer and pre-engineering students to enter this program.)

Students who are classified as pre-engineering majors cannot register for 300 and 400 level courses offered by any of the engineering departments.

#### SOUTHERN ILLINOIS UNIVERSITY AT CARBONDALE STUDENTS

Students currently enrolled at the University who have not been admitted to an engineering major must meet the requirements described above to transfer into one of the engineering programs.

#### INTERNATIONAL STUDENTS

International students must meet admission requirements comparable to those of native students. While admission credentials such as ACT scores and class rank are not generally submitted by international students, students do submit credentials which reflect their achievements in subject areas such as English, mathematics, and science. Therefore, beginning freshmen and transfer students with less than twenty-six semester hours will be required to submit records which reflect above average achievements in these disciplines in order to be admitted to an engineering program. Transfer students who have earned twenty-six semester hours or more of transfer credit will be required to have a 2.40 or comparable grade point average.

Students who meet minimum University admission requirements but do not meet those requirements for entrance to an engineering program will be granted admission to the college with a pre-engineering classification and be advised as to an appropriate program during the first year. These students must satisfy the requirements previously described for native students in order to transfer to an engineering major.

Because interest in engineering classes continues to be exceedingly high, it may be necessary to close admission to selected engineering majors without advance notice.

#### ENGINEERING TECHNOLOGY AND INDUSTRIAL TECHNOLOGY

Admission policies to the engineering technology and industrial technology majors have not changed. However, it is recommended that all students considering

entrance to these programs should have completed four years of English, three and one-half years of mathematics in which there are two years of algebra, one year of geometry, and one-half year of trigonometry, and two years of science which includes one year of chemistry and one year of physics.

### **Collegiate Warning and Dismissal Policy**

Students in the College of Engineering and Technology must meet the requirements of the University retention policy as well as those of the College of Engineering and Technology. They are also required to maintain a 2.0 grade point average in their major at all times. Students who do not achieve an accumulative 2.0 grade point average in their major in any semester are subject to collegiate warning.

The courses used to determine the major grade point average for engineering students are courses offered as engineering (ENGR), civil engineering (CE), engineering mechanics (EM), electrical engineering (EE), mechanical engineering (ME), mining engineering (MNGE), and any courses previously completed as ESSE, EMM, and TEE. The courses used to determine the major grade point average for engineering technology students are courses offered as engineering technology (ET). The courses used to determine the major grade point average for industrial technology students are courses offered as industrial technology (IT).

Students who are on collegiate warning and do not earn a 2.0 grade point average in courses required by their major in a subsequent semester will be placed on a status of collegiate dismissal. A student who has been placed on collegiate dismissal will be transferred to Undergraduate Academic Services or may seek transfer to another University program if the student has an overall Southern Illinois University at Carbondale grade point average of 2.0. Students who are placed on collegiate dismissal and have less than an overall 2.0 University grade point average for work completed at the University but have not been suspended from the University will be placed in Undergraduate Academic Services.

### **Readmission to the College**

Students dismissed from the College of Engineering and Technology for failing to maintain a grade point average of 2.0 in the major courses may seek readmission under the following conditions:

*First Collegiate Dismissal.* The student on collegiate dismissal should first contact the chairperson of the department to which the student wishes to be considered for readmission. Upon recommendation of the departmental chairperson, the dean or the dean's designate may convene a readmission committee which will include the chairperson or the chairperson's representative from the department in which the student wants to be enrolled, a faculty member also from that department, and the dean or the dean's designate. The dean or the dean's designate may readmit a student dismissed from the college provided the student has interrupted education in the department for a minimum of two semesters and shows evidence that the program of study can be successfully completed. For this purpose, summer session will be considered a semester.

The student should supply written evidence to include: (1) any extraordinary circumstances that contributed to the collegiate dismissal; (2) why the student thinks there is a reasonable chance to succeed in studies; and (3) what the student was doing during the interruption period that will contribute to further success. For engineering students strong consideration will be given to those students who satisfy item 3 by earning a grade point average of at least 2.4 in at least 12 semester hours in engineering courses, prerequisite science or mathematics courses which are required for graduation in engineering at the University. These courses may be taken at another university or community college.



Insufficient documentation to justify the request will result in denial of the request for that semester.

Engineering students on collegiate dismissal but eligible to continue at the University may be admitted to a major in the Department of Technology in certain cases upon approval of the department chairperson without the two semester interruption.

*Second and Subsequent Dismissals.* A student on collegiate dismissal for a semester or subsequent time may apply for readmission after an interval of no less than two calendar years. There are no exceptions. Students requesting readmission who have been on dismissal two or more times must be referred to a readmission committee by the department chairperson as described above.

Engineering students on a second or subsequent collegiate dismissal may be admitted to a major in the Department of Technology in certain cases upon approval of the department chairperson without the two year interruption.

*Collegiate Dismissal Prior to Fall, 1985.* A special provision has been provided for students who were dismissed from the College of Engineering and Technology at a time when the reentry grade point average was 2.0. These students may reenter the college in the same major if the student has continued education without interruption at the University or another institution and has an overall university grade point average of at least 2.0. For this purpose, summer session is not considered as an interruption.

In order to remain in the college, these students must complete twelve hours of engineering courses during the first semester of reentry and earn at least a 2.4 average. The student who does not earn at least a 2.4 average the first semester will be dismissed from the college. If the summer session is one of the semesters involved then six hours must be completed in the summer.

Students who reenter the college under this provision are subject to the current College of Engineering and Technology retention policy.

If a student was in good standing and interrupts education for reasons other than academic and does not complete or attempt to complete any additional college work, the student will be permitted to reenter the same major in which enrolled during the last semester of attendance at the University.

Any student who began work at the University Summer, 1985, or later is not covered by this provision.

*Admission to Engineering and Technology Classes.* Students who are on collegiate dismissal but eligible to continue at Southern Illinois University at Carbondale can take only the following engineering (ENGR) courses while on academic dismissal: Engineering 100, 222, 260a, or 260b. Students are not restricted from taking other required non-engineering courses. Students may register for Department of Technology classes upon the approval of the Department of Technology chairperson or designate.

## Course Sequence

It is important that required courses in the program be taken in the proper sequence. Sequence guidelines are available from the college advisement office and the departmental offices. Courses on the 300 and 400 levels are reserved for juniors and seniors.

## Course Withdrawals

Students who withdraw from a College of Engineering and Technology course after the fourth day of the Fall semester will not be permitted to take the course the following Spring semester. Students who withdraw from a College of Engineering



and Technology course after the fourth day of the Spring semester will not be permitted to take the course the following Fall semester.

### **Transferred Credits**

All transfer credit from an institution whose work is acceptable at the University, both two-year and four-year, will be used in fulfillment of the standards given above. Equivalencies for courses will be determined by the departmental chairperson, advisement office, or office of the dean, College of Engineering and Technology.

Students who are attending a public Illinois community college and contemplating application to the College of Engineering and Technology should obtain program information which has been prepared for their particular community college.

Qualified candidates for the Capstone Program are accepted with majors in industrial technology. The Capstone Program is described earlier in this chapter.

### **Location**

Administrative offices of the college are located in the Technology Building near Lake-on-the-Campus.

## **Graduate School**

JOHN H. YOPP, *Dean of the Graduate School*

Southern Illinois University at Carbondale is a comprehensive university with an extensive offering of graduate programs and a significant commitment to research development and accomplishment.

More than 3,600 graduate students pursue advanced study and research under the leadership and direction of some 1000 graduate faculty members. The Graduate School offers master's degrees through fifty-six programs, the specialist degree (sixth year) in three areas of education, and the doctoral degree through twenty-four programs. The Ph.D. program in education has concentrations in eight different areas.

The following graduate degrees are offered: Master of Accountancy, Master of Arts, Master of Business Administration, Master of Fine Arts, Master of Music, Master of Public Affairs, Master of Science, Master of Science in Education, Master of Social Work, the Specialist degree offered in the field of education, the Doctor of Philosophy, the Doctor of Business Administration, and the Doctor of Rehabilitation.

The Graduate School is fully accredited by the North Central Association of Colleges and Secondary Schools, and specific programs have been accredited by appropriate state and national accrediting associations.

A separate catalog describing admission and graduation requirements for the various programs in the Graduate School may be had by writing to the Graduate School, Southern Illinois University at Carbondale, Carbondale, Illinois 62901. An application for admission to graduate study may be requested from the Graduate School.

## **College of Human Resources**

SEYMOUR BRYSON, *Dean*

School of Social Work with academic programs in social work and black American studies; Center for the Study of Crime, Delinquency, and Corrections; Rehabilitation Institute.

The College of Human Resources offers the following majors leading to the Bachelor of Science degree:

## Administration of Justice

## Social Work

The specific requirements for each of these majors are listed in the next chapter.

Qualified candidates for the Capstone Program are accepted with majors in administration of justice. The Capstone Program is described earlier in this chapter.

Minors are offered in administration of justice, aging studies, and black American studies.

School of Law

RENNARD JAMES STRICKLAND, *Dean*

The school offers a three-year program leading to the Juris Doctor (J.D.) degree. Candidates must satisfy the entrance requirements, fulfill the residence requirements, satisfactorily complete a total of 90 semester hours for credit and take all required courses. Students may, with permission from the School of Law and the relevant graduate program director, obtain joint JD/MBA, JD/MPA and JD/Master of Accountancy degrees. Approximately 115 entering freshman will be admitted in the fall of 1985.

The law school has received accreditation from the American Bar Association and is a member of the Association of American Law Schools. During the summer of 1981 the school occupied new and contemporary facilities housing classrooms, student lounges, administrative offices and the library, as well as a courtroom and large, in-house clinic offices. The law library contains 250,000 volumes and provides student access to computer assisted research through LEXIS and WESTLAW.

The faculty and student body of the school are of the highest quality, and its curriculum is designed to inculcate fundamental legal concepts and skills which are the hallmarks of the legal profession. In addition to the Socratic – casebook method, other teaching methods, including clinical, are utilized as the subject matter requires. The School of Law catalog can be obtained by writing to the School of Law.

# College of Liberal Arts

JOHN S. JACKSON, *Dean*

Departments: Anthropology; Computer Science; Economics; English; Foreign Languages and Literatures; Geography; History; Linguistics; Philosophy; Political Science; Psychology; Religious Studies; Sociology

The College of Liberal Arts offers the following majors leading to the Bachelor of Arts and Bachelor of Science degrees. Minors are possible in most of these areas. For exceptions, see next chapter.

African Studies<sup>1</sup>Chinese<sup>1</sup>

Russian

## Anthropology

## Classical Civilization<sup>1</sup>

Spanish

Asian Studies<sup>1</sup>

## Classics

## Geography

# Comparative Literature<sup>1</sup>

East Asian

## History

Computer Science

## Civilizations<sup>1</sup>

Linguistics

Earth Science<sup>1</sup>

French

Mathematics

## Economics

German

Museum Studies<sup>1</sup>

English

Greek<sup>1</sup>

## Paralegal Studies for

## Foreign Languages

Japanese<sup>1</sup>

## Legal Assistants

## and Literatures

Latin<sup>1</sup>

## Philosophy



Political Science  
Psychology

Religious Studies  
Sociology

Speech Communication<sup>2</sup>  
Uncommon languages<sup>1</sup>

<sup>1</sup>Minor only.

<sup>2</sup>Liberal arts major, not professional major.

The College of Liberal Arts provides instruction in basic subject matter courses of General Education; majors in twenty subject areas; graduate programs for students pursuing master's and Ph.D. degrees; preprofessional curricula for specialized schools such as law and courses offered through the Division of Continuing Education. The Bachelor of Arts or Bachelor of Science degree is granted to students who fulfill requirements for graduation from the College of Liberal Arts. The courses of study outlined by the departments determine the degree awarded. Students in the College of Liberal Arts may also prepare directly for teaching at the secondary level by including in their studies certain professional courses offered by the College of Education.

Through the diversified offerings of the College of Liberal Arts, students develop the ability to seek and weigh evidence and to think critically and independently; they gain a fundamental understanding of the ever changing social, political, and physical environment, and a deeper understanding of people, cultures, art, and literature.

#### ACADEMIC REQUIREMENTS

To receive a degree from the College of Liberal Arts students must fulfill the following:

1. University requirements including those relating to General Education, residency, total hours completed, and grade point average.
2. College of Liberal Arts requirements of one year of a foreign language; one course in mathematics or computer science in addition to the General Education mathematics requirement; one course in English composition in addition to the General Education composition requirement. Foreign students whose native language is not English and who have successfully satisfied the requirement of the Office of Admissions and Records for English language proficiency will have satisfied the College of Liberal Arts foreign language requirement by offering English as their second language. Foreign students who have met the English language proficiency requirement also must offer proof of literacy in their native language by providing a secondary school certificate from their native country.
3. Completion of an approved major in the College of Liberal Arts.
4. At least 40 hours of course work at the 300 or 400 level.

Liberal arts major requirements provide for a large number of elective courses, giving students maximum flexibility in planning their overall program of study at the University. To assist students in planning their programs, the college maintains an academic advisement office in Faner Hall 1229, as well as faculty advisers in each department. Students are urged to consult these academic advisers on how they can best use their electives to fulfill their intellectual interests and to prepare for particular career opportunities. A carefully planned minor or second major field can lead to additional career opportunities for the liberal arts major. Students who are planning to attend graduate school or one of the professional schools such as law or medicine should consult with their advisers on how best to plan their undergraduate curriculum.

#### University Honors Program

The University Honors Program is located administratively in the College of Liberal Arts. University Honors is a University-wide undergraduate program designed to offer unique educational experiences to participating students. The program includes making available small sections of large classes, special semi-



nars, independent studies, and other methods of enriching the education of its members, who are designated University Scholars.

At the time of graduation, an indication of participation in the program is made on the diploma and transcript for students who complete all requirements.

The director of honors opportunities is aided by the Honors Council and by the Council of University Scholars in administering the program.

The University Honors Program also oversees, publicizes, and coordinates all campus award competitions and some internship and travel/study plans. The director of honors opportunities seeks out special educational opportunities for students as a further way of offering more challenging and more interesting educational opportunities. Students with special educational needs are encouraged to discuss their plans with the director of honors opportunities.

Admission and retention information for University Scholars is found in chapter 2.

University Scholars may complete the General Education requirements of the University by enrolling in advanced courses in departments which offer General Education courses. Individual options may be exercised which fulfill the spirit of General Education requirements, but, to challenge the University Scholar, may depart from standard University requirements.

Baccalaureate degrees for University Honors Program participants are awarded through the regular degree granting units.

Inquiries about the program should be addressed to the director of honors opportunities.

### **Pre-Law**

The College of Liberal Arts has a pre-law advisory committee to help students plan a useful, interesting curriculum to acquire the skills important for the study of law. This committee is made up of faculty members of various University units who hold law degrees or who have particular expertise in fields important to law and pre-law preparation. The committee sponsors a Pre-Law Night each fall, when opportunities are presented for open discussion of undergraduate curriculum and the law school admission process. These discussions are led by students and faculty of the Southern Illinois University at Carbondale School of Law. A mock Law School Admission Test is given twice a year under regular test conditions.

The pre-law student may choose any major course of study. Among courses especially recommended for pre-law students is Liberal Arts (LAC) 105, Law in American Society, a special interdisciplinary course offered each fall semester. Students who are interested in pre-law may discuss academic programs and plans with pre-law advisers in the Liberal Arts Advisement Office.

## **School of Medicine**

**RICHARD H. MOY, *Dean and Provost***

Southern Illinois University School of Medicine was established in 1970 after the Illinois General Assembly passed a bill calling for a second medical school to be established in downstate Illinois. The school graduated an advanced standing class in 1975 and its charter class of all Illinois students in 1976. Currently, 72 students are admitted each year. Today, the school encompasses a complete sequence of medical education beginning with the M.D. degree and progressing through residency training and on to continuing medical education for practicing physicians.

The school's competency-based curriculum has brought the University national attention. Since students are not evaluated in competition with their peers, they

are stimulated to cooperate with one another, a situation which more closely resembles what takes place in the actual practice of medicine. Problem-based learning concepts, including active learning situations with paper and simulated patients, are used to help students work toward competency throughout the curriculum. The four-year M.D. degree begins the first year in Carbondale where students concentrate on the basic sciences. The remaining three years are spent in Springfield where students study clinical medicine along with medical humanities and non-clinical electives.

The instructional program in Carbondale is based in Lindegren Hall and Memorial Hospital. In Springfield, it is based in the medical school instructional building, Memorial Medical Center, and St. John's Hospital.

The school's Medical Education Preparatory Program (MEDPREP) in Carbondale is designed to assist minority and other students with educationally disadvantaged backgrounds to prepare for success in medical and dental schools. The school has one of the highest percentages of minority students enrolled of any Illinois medical school.

The University residency programs include child psychiatry, family practice, internal medicine/pediatrics combined, obstetrics and gynecology, pathology, pediatrics, psychiatry, radiology and five surgical specialties. There are eight fellowships for advanced clinical work.

The University's continuing medical education program provides and accredits an extensive schedule of conferences and symposia for physicians and other health care professionals in central and southern Illinois. Springfield is the location for about three-fourths of the programs; the rest are coordinated through twelve Regional Health Education Centers located throughout the lower half of the state.

The faculty in Carbondale's four basic science departments as well as Springfield's two medical sciences departments divide their time between teaching responsibilities and independent and collaborative research projects and regional support services. Both clinical investigators and the basic scientists collaborate on a wide-range of medical and scientific projects; they work in the various basic science laboratories on both campuses and in the clinical facilities located in the affiliated hospitals. The faculty's commitment to research is further characterized by the offering of graduate programs leading to master's and doctoral degrees in physiology with work in pharmacology and in medical microbiology and immunology.

Interfaced with all of its various educational and research programs is the provision of patient care through the various clinical departments and specialized clinics of the school and the practice of its physician faculty.

Admission is restricted to legal residents of Illinois and preference is given to applicants from central and southern Illinois intending to practice medicine in the state. Inquiries on admission should be addressed to the director of admissions, Southern Illinois University School of Medicine, P.O. Box 3926, Springfield, Illinois 62708.

## College of Science

RUSSELL R. DUTCHER, *Dean*

Departments: Botany; Chemistry and Biochemistry; Geology; Mathematics; Microbiology; Physics; Zoology

The College of Science offers majors, and in most cases minors, leading to the Bachelor of Arts and Bachelor of Science degrees in the following fields of study:

Biological	Botany	Geology	Physics	Physiology
Sciences	Chemistry	Microbiology	Mathematics	Zoology



A minor in earth science is also offered.

Included in the curriculum of each department are survey courses that provide an introduction to the subject matter of that discipline while fulfilling the General Education requirements of Southern Illinois University at Carbondale. These courses assist all students to develop an understanding and appreciation of the impact of science on one's daily life. Elementary and advanced courses are provided to prepare students for professional employment or entrance into professional and graduate schools. Graduate training is also provided by each of the science departments leading to the M.S. or Ph.D. degree. The research interests of the faculty are extremely diverse.

Students in the College of Science may prepare for teaching at the secondary level by fulfilling the additional requirements of the College of Education. The Bachelor of Arts or the Bachelor of Science degree is granted to students who fulfill the requirements for graduation as given and the requirements of the departments in which the students declare their majors.

Each department has specific requirements for students to major in the selected field of interest, but the College of Science has some minimum general requirements listed below.

#### ACADEMIC REQUIREMENTS

None of these general academic requirements may be satisfied by taking the required courses on a Pass/Fail grading basis.

*Biological Sciences.* Six semester hours in courses offered by the biological sciences departments in the college, with the proviso that this requirement cannot be satisfied in whole or in part by General Education courses, but may be substituted for the latter in meeting the General Education requirements.

*Foreign Language.* The foreign language requirement can be met by one of the following: (a) passing an 8-hour 100-level sequence in one language; (b) by earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than C. Tests administered during advisement of new students will determine whether proficiency credit is allowable.

A student whose native language is not English may use the native language to satisfy part or all of the science foreign language requirement at the University. If the language is presently taught at Southern Illinois University, academic credit may be earned. If the language is not presently taught at the University, no credit is given, but partial or full satisfaction of the science foreign language requirement may be granted if the student's major department so recommends. A student whose native language is English but who has learned another language not taught at the University may qualify without credit for partial or full satisfaction of the science foreign language requirement under certain circumstances, including formal recommendation by the student's major department and availability of an examiner and examination materials within the Department of Foreign Languages and Literatures. For information, the student should consult the College of Science advisement center.

*Mathematics.* The mathematics requirement can be met by (a) passing Mathematics 108 and 109 or its equivalent or Mathematics 140, or (b) completing three years of high school mathematics with no grade lower than C and achieving a score on the University's Mathematics Placement Test which allows the student to enroll directly in Mathematics 150.

*Physical Sciences.* Six semester hours in courses offered by the physical science departments of the college, with the proviso that this requirement cannot be satis-



fied in whole or in part by General Education courses, but may be substituted for the latter in meeting the General Education requirements.

*General Requirements.* At least 40 hours of the student's 120 hours for graduation must be at the 300 or 400 level. The total may include transfer credit for courses judged by the department involved to be equivalent to its upper division courses. For transfer students submitting only the last year in residence, at least 24 of these must be at the 300 or 400 level.

#### PREPROFESSIONAL COURSES

A student planning a professional career in any of the following fields should register in the College of Science immediately: dentistry, medicine, optometry, physical therapy, podiatry, pharmacy, veterinary science. Preprofessional students should refer to the baccalaureate degree section in this chapter.

## School of Technical Careers

HARRY G. MILLER, Dean

The School of Technical Careers is unique among institutions of higher learning in Illinois. The school offers technically-oriented academic programs which lead to the Associate in Applied Science and Bachelor of Science degrees.

The educational offerings of the school include:

1. Associate degree programs structured for entry of new students or free flow of students from other institutions or from other units within the University;
2. Post- or extra-associate offerings in occupational areas related to these programs; and
3. Baccalaureate programs for students with career goals in selected technical/professional areas.

Currently, the School of Technical Careers offers majors leading to the Associate in Applied Science degrees. These are:

Allied Health Career Specialties	Electronics Technology
Architectural Technology	Law Enforcement
Automotive Technology	Mortuary Science and Funeral Service
Aviation Flight	Nursing
Aviation Maintenance Technology	Photographic Production Technology
Avionics Technology	Physical Therapist Assistant
Commercial Graphics – Design	Radiologic Technology
Computer Information Processing	Respiratory Therapy Technology
Construction Technology	Secretarial and Office Specialties
Dental Hygiene	Tool and Manufacturing Technology
Dental Technology	

A number of these majors offer third year post-associate specializations to provide the student who holds the associate degree with additional competencies.

On the baccalaureate level, the School of Technical Careers offers the following majors leading to the Bachelor of Science degree:

Aviation Management	Electronics Management
Career Development	Fire Science Management
Consumer Economics and Family Management	Health Care Management
	Interior Design

Qualified candidates for the Capstone program are accepted into most of the baccalaureate programs. The Capstone program is described earlier in this chapter.

Requirements for associate and baccalaureate programs are listed in Chapter 4 of this bulletin.

Information on the school, its programs, and course offerings is available

through the office of the dean, School of Technical Careers, Southern Illinois University at Carbondale, Carbondale, Illinois 62901.

## Undergraduate Academic Services

Undergraduate Academic Services includes the following programs:

Center for Basic Skills	University Studies Baccalaureate
Pre-Major Advisement Center	Upward Bound
Special Majors	

Undergraduate Academic Services provides all undergraduate students a variety of programs designed to enhance and support the quality of academic life at Southern Illinois University at Carbondale. This unit assists students who are undecided as to their major, those who desire enriching and specially designed curricula, and those who need academic support services. The Bachelor of Science or Bachelor of Arts degree is offered through the University Studies Baccalaureate program. Students interested in Undergraduate Academic Services should contact the director.

### Center for Basic Skills

The Center for Basic Skills offers special academic assistance through laboratory instruction, small group sessions, workshops, seminars, and individual tutorials in study/learning skills, speech communication, selected freshman-level content courses, and personal and career counseling and guidance. In addition, a course titled Comprehensive Learning Skills is offered through the center. This course offers study/learning skills needed to pursue an education at the University. Although participation for some students may be required, any student is welcome to take advantage of this special service at no cost.

### Pre-Major Advisement Center

The Pre-Major Advisement Center is the academic home of students who have not declared a major. The advisers have a wide acquaintance with the many programs offered by the University and are ready to help students select a suitable area of specialization.

### Special Major

A student whose academic needs are not met by existing baccalaureate programs may arrange a special baccalaureate degree program in lieu of a standard curriculum. In consultation with a faculty sponsor, the student draws up a program for which the baccalaureate degree will be awarded, with final approval from the director of Undergraduate Academic Services. The special area program should have structure, organization, and a rationale consistent with the student's post-baccalaureate plans. The special major must include all University and unit graduation requirements.

Interested students should confer with the director of Undergraduate Academic Services.

### University Studies Baccalaureate

In the University Studies Program students pursue either a Bachelor of Arts or Bachelor of Science degree through an individually designed, broad based curriculum rather than a traditional specialization. The program accommodates multidisciplinary and non-traditional approaches to education and to related careers.

To determine eligibility for the University Studies program as well as to explore specific program possibilities, students should consult the associate director, Undergraduate Academic Services.



## **Upward Bound**

This is a pre-collegiate support program which identifies and recruits ninth to twelfth grade students in specific areas of southern Illinois who have the potential for serious academic work but who are insufficiently motivated. The program provides developmental, personal, and academic opportunities for underprivileged students who might not otherwise see themselves as future college students. Persons interested should direct inquiries to the director, Upward Bound.

## **Other Academic Activities**

### **Library Affairs**

Morris Library, named after the late Delyte W. Morris, University president from 1948 to 1970, is an eight-level building that contains over 1,700,000 volumes, some 15,000 current periodicals and serials, and 2,200,000 units of microforms. Collections of government documents, maps, films, framed art prints, and phonograph records exist as well. With the exception of those in Special Collections, most books and journals are arranged on open shelves and are accessible for browsing.

Morris Library houses four subject divisions (education and psychology, humanities, science, and social studies), a reserve reading room, learning resources service, Special Collections, and the undergraduate library. Microform reading equipment is available in each subject division and the undergraduate library; the sound recording collection and listening equipment are provided in the humanities division. A central card catalog, identifying most of the collection, is located on the first floor, as is the central circulation desk where materials are checked out using an automated circulation system. The browsing room, located on the first floor, contains recent books of a popular nature to provide recreational and avocational reading. Self-service photocopying machines are available to patrons on each floor.

The undergraduate library, located on the first floor, contains a collection of some 95,000 volumes that are considered basic to the undergraduate curriculum. A professional staff is available to provide special attention to the needs of undergraduate students and assist them in finding the information they want in a universe of materials as large and complex as a research library.

An on-line bibliographic search service offers access to over 100 machine-readable data bases which may be searched via computer terminals. Reference librarians in each subject division are available to aid the researcher in developing a search strategy to obtain computer-produced bibliographies on a variety of topics.

Morris Library is a member of the Illinois Library Computer System (LCS), which provides an on-line circulation system to participating libraries and supports computerized interlibrary loan activity among academic libraries to promote and enhance resource sharing on a state-wide basis.

Learning Resources Service, located in the basement of Morris Library, provides a broad range of instructional support services that seek to enhance student learning through the creation of outstanding instruction. The Learning Resources Service is divided into four units, each designed to provide specific instructional support services. The instructional development unit consists of faculty members who are available to faculty and teaching staff for consultation on the teaching-learning process. This staff works with faculty in the systematic analysis, design, and evaluation of instruction. The media services unit provides media support to faculty through the film library, photographic, video and graphics production, and the Self Instruction Center, where students can utilize materials designed to sup-



port classroom instruction. The student media design laboratory, also found within the Self Instruction Center, enables students to produce instructional media for classes, projects, and student teaching experiences. The campus services unit provides and maintains audio-visual support for the campus. Instructional evaluation provides optical scanning of test and evaluation forms. Professional assistance is available when utilizing Learning Resources Service, and services are provided free or at a nominal cost.

Special Collections, on the second floor of Morris Library, maintains the rare books collection, manuscripts and University archives. It contains important research collections in American and British expatriate literature, twentieth century philosophy, proletariat theatre, the Irish literary renaissance, and press freedom. The use of these non-circulating materials is restricted to those doing research, but others are encouraged to visit the area and view the numerous exhibits. Two major editorial projects, The Center for (John) Dewey Studies and the Ulysses S. Grant Association, compile, edit, and publish the works of these individuals.

Credit courses in bibliographic instruction, library use, and information retrieval are offered on a regular basis and a wide range of information and orientation brochures and materials, as well as a multi-media slide/tape presentation, are available.

The library faculty and staff recognize the complexity involved in using a research library and are eager to help students, faculty, staff, and others in satisfying their information needs.

### **Division of Continuing Education**

The Division of Continuing Education expands the University's educational mission beyond regular course offerings and campus boundaries. The division's off-campus credit programs, the adult part-time student program, non-credit classes, workshops and conferences, the individualized learning program, and the contractual services program offer the University's resources to a variety of groups at selected sites.

*Off-Campus Credit.* Off-Campus credit programs are designed to meet the educational needs of working adults or those who cannot travel frequently to the Carbondale campus to work toward their degrees. Faculty teaching off-campus courses are approved by the appropriate department. Graduate courses in agriculture, education, engineering, and rehabilitation administration, as well as a variety of upper division undergraduate courses are offered at various locations throughout Illinois. An undergraduate degree program in University Studies is available to students at selected, off-campus sites.

*Adult Part-Time Student Program.* The Adult Part-Time Student Program provides individuals within commuting distance of the campus the opportunity to take up to 26 undergraduate hours of college work on a special admissions basis. Tuition is the same as all other undergraduate courses, but students in the program pay reduced fees.

Individuals who possess a high school diploma or GED certificate and who have not been academically suspended from Southern Illinois University at Carbondale or any other institution of higher education during the 12 months prior to application for the Adult Part-Time Student Program are eligible for admission. Students may take course loads not to exceed nine semester hours during fall and spring semesters and up to six hours during summer session. The Adult Part-Time Student Program office is open one evening a week during registration periods for adults who wish to enroll or inquire about the program. Registration may be completed by telephone and mail.

*Individualized Learning.* Individuals who cannot attend classes at scheduled times may wish to enroll in an individualized learning course. Such courses are designed to be completed by the students at their own pace and time and, in many instances, in their own home. All courses in the individualized learning program are developed by University faculty and approved for academic credit. Occasionally such courses utilize the broadcast resources of WSIU-TV.

*Contractual Services.* The contractual services office provides specialized educational services to groups, organizations, governmental agencies, and businesses on a cost-recovery basis. These services are provided regionally, nationally, and internationally.

*Conferences and Adult Education Courses.* Conferences, workshops, seminars, and symposia in virtually every field of study are conducted either on or off campus, at the most convenient site for participants. The division assists with all aspects of program development and implementation, including identification of the clients, design of the program, selection of the facility and final evaluation and report. Major emphasis is placed upon utilizing the campus for the annual national conferences and conventions of professional and specialized organizations.

Adult education non-credit courses feature instruction by University faculty, as well as carefully selected specialists from business, industry, and other professions. A spectrum of educational opportunities are available to residents of southern Illinois, including vocational and technical classes and general education offerings in the arts and humanities. Continuing Education Units (CEUs) are available for many of the conferences and adult education courses offered by the division.

A special opportunity is offered to local residents of the southern Illinois region through the community listener's program. With the approval of the instructor, community members may for a modest fee sit in on regular credit courses of the University.

### **Military Programs**

The Office of Military Programs is the central administrative unit for the University's various programs for military personnel. Currently, baccalaureate programs are offered through the College of Education, the School of Technical Careers, and the College of Engineering and Technology. The office serves as the principal point of contact and represents the University with external agencies in matters pertaining to educational programs at military bases. For additional information refer to the section on student work and financial assistance in this chapter and to Capstone Program and credit granted for military experiences in Chapter 2. Additional information may also be found in chapters 3 and 4 of the academic unit descriptions and majors. Students interested in admission should consult the Southern Illinois University at Carbondale base representative on the appropriate military base.

### **Aerospace Studies – Air Force ROTC**

Aerospace Studies offers two-year and four-year programs which are open to both men and women, leading to a commission in the United States Air Force. The four-year program is divided into the General Military Course (GMC), covering the freshman and sophomore years, and the Professional Officer Course (POC), covering the last two years. Students qualify to enter the two-year program at the POC level by attending a six-week field training course during the preceding summer. Cadets must complete a course in English composition during GMC membership.



The GMC prepares students for the POC and provides them with an education for space age citizenship of long range value whether they remain civilians or become officers in the U.S. Air Force. The courses of the POC are designed to provide the basic knowledge, understanding, and experiences which are required to become an effective junior officer in the modern air force. The student learns about the wide range of USAF career specialties open and has an opportunity to request duty in those fields where qualified.

Freshman and sophomore students enrolled in the four-year program are eligible to compete for full scholarships for their remaining years at the University. In addition to full tuition and fees, the scholarship provides a monthly tax-free subsistence allowance. Also, two-year AFROTC scholarship and State of Illinois (Senate Bill 381) tuition waivers are available on a competitive basis. Federal scholarship recipients must agree to successfully complete at least one semester of instruction in a major Indo-European or Asian language or equivalent prior to commissioning.

In addition to the courses offered for academic credit, Aerospace Studies sponsors related extracurricular activities. The Aerospace Club is open to all members of the student body. The Arnold Air Society, a national honorary service organization, is open to selected AFROTC cadets. Membership in the Angel Flight, an auxiliary of the Arnold Air Society, is open to all undergraduates. Angel Flight assists with community and campus service-oriented projects. The Saluki AFROTC Drill Team is open to selected AFROTC cadets on a competitive basis. Members participate in local community events and in selected drill competition meets.

Further information may be obtained from the Department of Aerospace Studies, 807 South University Avenue, 453-2481.

### **Army Military Science – Army ROTC**

The senior army military science program offers a progressive adventure-filled two-year and four-year program, for both men and women designed to teach students the leadership and management skills needed to pursue an exciting career in the United States Army. The four-year program is divided into the basic course, covering the freshman and sophomore years, and the advanced course, covering the junior and senior years. Students qualify for direct entry into the advanced course level (two-year program), by completing a six-week basic leadership practical at Fort Knox, Kentucky.

Veterans, National Guard, or army reserve personnel, students who have completed the basic course, and students who have completed three or more years of junior ROTC may also qualify for entry into the advanced ROTC course.

The basic course prepares the students for the advanced course and provides them with an education in citizenship, basic leadership and management skills, and personal enrichment experiences of long range value regardless of their future occupations. The advanced course is designed to provide basic knowledge, encompassing a wide range of subjects dealing with organizational and managerial leadership to the United States Army military history. The understandings and experiences derived from these courses and adventure training exercise are required to enable a student to grow into an effective junior officer in the U.S. Army.

The student additionally learns about the wide range of army career specialties open and has the opportunity to request duty in those fields where qualified. Students may request and be guaranteed reserve forces duty (RFD). Students completing the advanced course prior to graduating may request early commissioning in the army reserves or National Guard. Those students currently in the guard or army reserves may continue to participate in the guard/reserve unit and pursue a commission through the army's simultaneous membership program. Those students who qualify and are contracted for the advanced ROTC program will receive \$100 per month subsistence allowance during the school year.



Freshman and sophomore students enrolled in the four-year program are eligible to compete for army military science scholarships for two or three years. These scholarships pay full tuition, fees, books, and a \$100 per month subsistence allowance. Any Southern Illinois University at Carbondale student who has at least two academic years of school remaining and who can meet advanced course prerequisites may compete for any army ROTC scholarship. Illinois residents, who are enrolled in ROTC, can compete for state army ROTC scholarships, which pay tuition and other selected fees.

In addition to courses offered for academic credit, the army military science department sponsors extracurricular activities from elite ROTC organization to adventure training. The Ranger Company, Drill Team, and Color Guard are open to all ROTC students. Adventure training takes shape in the form of rappelling clinics conducted at Giant City State Park, field training exercises, and survival training conducted at Touch of Nature Environmental Center and Shawnee National Forest.

Further Information may be obtained from army military science, telephone (Area Code 618) 453-5786.

# 4

## Undergraduate Curricula and Courses

This chapter contains information about the undergraduate curricula and courses offered by Southern Illinois University. The course descriptions for undergraduate courses are included, but those courses offered for graduate students list only the credit hours and title of the course. The descriptions of graduate level courses are included in the Graduate Catalog. Chapter 1 of this bulletin includes a listing of the undergraduate majors and minors offered. Those majors and minors are included in this chapter with a description of the requirements for their completion. This chapter is arranged in alphabetical order.

### Abbreviations Used in this Chapter

Specific courses are identified by three-digit numerals plus, in some cases, a single letter. The first numeral of the three indicates the level of that course. A letter following the three numerals may indicate a *part* of a course (where *a* means first part, *b* means second part, etc.) or may identify the topics or subject areas specified in courses such as readings or special problems. A numeral or numerals separated from the identification number by a dash indicates the number of hours of credit received in the course. For example, Physics 203-6 (3,3) indicates a first-level, two-part course of 6 hours in the Department of Physics. The two parts of the course may be referred to as Physics 203a, b.

The five areas of General Education are referred to as GE-A, GE-B, GE-C, GE-D, and GE-E. The three-digit numerals following these abbreviations function similarly to those noted above.

In the areas of this chapter which describe course requirements for programs, numerals in parentheses in columns of figures pertain to semester hours which satisfy more than one requirement. They are in parentheses to avoid their being added to the total of the column, which would be a duplication of hours required. For example, under food and nutrition, GE-A 115 satisfies part of the General Education requirements and contributes 3 hours toward the 45 hours required. The 3 hours are also required for the major in food and nutrition, but do not contribute to the printed total of 53-54 hours.

### Course Descriptions

The first entry for each course is a three digit numeral plus, in some cases, a single letter which together with the subject area, serves to identify the course. The first digit indicates that the course is for freshmen, sophomores, juniors, seniors, and graduate students only, depending on whether the digit is 1, 2, 3, 4, or 5 respectively. If the digit is 0, the course is not properly in the above categories.

Following the identification number are a dash and another number, which indicates credit allowed for the course. The maximum credit may be variable, such as Accounting 491-1 to 6. Variable credit courses which have a number of credit



hours per semester or per topic which is limited, have those limits in parentheses following the total maximum hours of credit. An example of such a course is Administration of Justice 492-2 to 6 (2 to 3 per semester). Where courses are formally divided into parts, such as History 330-6 (3,3), the two or more numerals separated by commas in parentheses indicate the credit allowed for each part of the course.

Next is the title, followed by description of the course. If certain requirements must be satisfied before enrollment in a course, they are listed as prerequisites. If a course is a part of the undergraduate pass/fail system, it is so indicated by the term "Mandatory Pass/Fail."

Not all of the courses described here are offered every semester or even every year. To determine when and where a course is to be offered, consult the schedule of classes obtainable from University Publications, Southern Illinois University, Carbondale, Illinois 62901. When requesting a schedule, please specify *semester*.

## General Education Courses

### OUR PHYSICAL ENVIRONMENT AND BIOLOGICAL INHERITANCE (GE-A)

#### Courses

**101-3 Conceptual Insights Into Modern Communication Systems: From Hi-Fi Sound to Laser Beams.** The basic laws of nature will be presented in order to understand the functioning of modern communications such as high fidelity sound, radio, and television, and laser beams. There will be a strong emphasis on the nature of home entertainment equipment with discussions on the nature of waves and sound, electricity, and electromagnetism. The students will develop an understanding of the technical vocabulary necessary to judge high fidelity equipment.

**106-3 Chemistry for Non-Science Majors.** Selected discussions of inorganic, organic, and biological chemistry and their relationship to our standard of living and quality of our health and environment. Three lectures with one voluntary help session per week.

**110-3 Earth Science.** Earth and its major domains with Earth's substances and processes emphasized. Lecture, laboratory. Laboratory manual \$3.

**115-3 Biology.** For students with a weak biology background or for students who are non-biology majors but have an interest in gaining general knowledge of our biological inheritance. An introduction to the evolutionary development of our physical and biological environment, to the biological problems and processes of a model living organism, and to the role of biological research in the world of the future. Lecture-laboratory. Laboratory manual \$4.

**117-3 Botany: Plants and Society.** An introduction to the basic principles of plant science, historical and modern applications of plants to the human experience, and modern concepts of plant ecology and conservation. Laboratories will include trips to woodlands, wetlands, farms, greenhouses, herbarium, supermarket, farmer's market, and various plant research facilities. A modest field trip fee may be assessed.

**118-4 Introductory Zoology.** An introduction to the basic concepts of animal life and its diversity, including the elements of cellular and organismic structure and function, reproduction, development, genetics, evolution, and ecology. Three lectures and one 2-hour laboratory per week. Offered fall, spring, and summer terms. A cost of \$5 may be incurred by student.

**202-3 Space Science – Astronomy.** The solar system, our galaxy, and the universe beyond. Fundamental concepts of the physical sciences as applied in astronomy to our space environment. Lectures will be supplemented by demonstrations and by occasional hours of individual or supervised astronomical observations. Purchase of exercise sheets under \$1.00.

**221-3 Survival of Man.** (Same as GE-B 221 and GE-C 221.) Topics discussed include the interrelated ethnological, technological, sociological, moral and ethical aspects of the environmental problems concerned with technology, air pollution, urbanization, natural resource utilization, agriculture and aesthetics. Emphasis is placed on understanding the total context in which environmental problems must be considered. If both GE-A 220 and 221 are taken, only three hours may be counted in a given area of General Education, but three hours may be counted for the three additional hours required for areas A, B, and/or C.

**230-3 Energy and the Future.** Lectures on power, energy, and related concepts. Review of current energy resources and use patterns and outlook for changing patterns including overview of new energy conversion technology and environmental impact of energy use. Look at energy from global viewpoint to identify future limits on energy usage. Voluntary class discussions and student paper presentations.

**240-3 Ecology.** Fundamental biological and ecological processes important in the individual, population, and community life of organisms including humans are discussed in the context of eco-



logical systems. Lectures are supplemented by one hour of laboratory, field work, or other student options.

**312-3 Conservation of Natural Resources.** A study of people's use and misuse of natural environment emphasizing the ecological perspective.

**330-3 Weather.** Introduction to constituents and processes in the Earth's atmospheric environment; major atmospheric variables; major features, characteristics of the atmosphere; elemental principles of forecasting; meteorological causes of atmospheric pollution. Interaction of processes and variables to define climate for various regions of the world. Charges not to exceed \$10 for field trips, \$5 for supplies.

## OUR SOCIAL INHERITANCE AND SOCIAL RESPONSIBILITIES (GE-B)

### Courses

**102-3 The Western World.** A topical study of the fundamental social, economic, and political elements constituting the traditions of western civilization which are still relevant today.

**103-3 Geography of the Human Environment.** Provides students with basic information on the nature and problems associated with the major environments of the world. The geographical distribution of climate and physiographic elements of world environments are described. The problems of economic development, environmental change, and the relation of people to the land in the major regions of the world are investigated. Purchase of materials in the range of \$4.

**104-3 The Human Experience: Anthropology.** The main ideas of the anthropological approach to the study of humans. Anthropology's relevance to the student in today's world shown through examples drawn from the subject matter of the field.

**105-3 The Contemporary World.** An examination of the fundamental problems of the contemporary era as seen in historical perspective. No credit toward the major in history.

**108-3 The Sociological Perspective.** An examination of the range of social relationships among people: basic sociological concepts and theories, social groups, social institutions, social and cultural change, and social deviance.

**112-3 Comparative Economic Systems.** Introductory investigation of the historical development of the theoretical economic systems of capitalism, socialism, and communism and the practical workings of those systems in such nations as the U.S., the U.S.S.R., Great Britain, China, Yugoslavia, Iran, Poland, et al.

**202-3 Introduction to Psychology.** An examination of the variables related to the origins and modifications of human behavior using the viewpoints and techniques of contemporary psychology. Purchase of syllabus (about \$3.00 to \$3.50).

**205-3 Consumer Decision-Making.** To acquaint students with the influence of resource limitations, markets, government, and other socio-cultural forces on individual consumption decision; to analyze the information and apply the economic principles relevant to rational decisions; to increase awareness of consumer rights and responsibilities and the consumer's role in the economy. Students should be able to make more effective purchase decisions and to critically appraise the U.S. economy from the viewpoint of consumers.

**211-3 Contemporary Economics.** A study of the basic economic problems confronting America and the world today. This course gives students a broad latitude in the structuring of topics to be discussed. Problems are discussed from the point of view of public policy as well as theory.

**212-3 Introduction to American Government and Politics.** An introduction to American government including the cultural context, structure and functions of the national political system, and some attention to subnational politics.

**215-3 Comparative Race and Ethnic Relations.** Comparative study of race and ethnic relations in the U.S., in other developed societies, and in selected developing countries: the persistence of ethnic/racial identities; inter-group relations; government policy; assimilation, segregation, amalgamation, conflict, social problems; separatist and other social movements.

**221-3 Survival of Man.** (See GE-A 221.)

**250-3 Comparative Politics.** Politics and the societies and cultures that shape them. Western democracies, Third World, communist countries.

**262-3 Marriage and Family in Contemporary Society.** Survey of contemporary family life within historical and cross-cultural perspectives. Overview of recent trends in mate selection, marriage, parenthood, employment, and communication in the family.

**301-3 Modern America from 1877 to the Present.** A general survey of the political, social, and economic development of the United States from 1877 to the present. Purchase of books and materials in the range of \$7.

## OUR INSIGHTS AND APPRECIATIONS (GE-C)

### Courses

**100-3 Music Understanding.** The aural perception of musical sound events, relationships, and structures. Helps the student to become a more sensitive and perceptive listener. Listening assignments include a wide variety of styles and kinds of music. Not historically oriented.



**101-3 Introduction to Art.** A basic introduction to the theory, meaning, and creation of visual art with emphasis upon interdisciplinary concerns. Two hours lecture and two hours studio per week. Possible incidental fee maximum \$5.

**102-3 Problems in Philosophy.** Introductory survey of some main philosophic problems concerning people, nature, society, and God, as discussed by major Western thinkers. Possible supplementary paperback expense not to exceed \$5.

**103-3 Introduction to Theater.** Introduces students to the world of theater. Through lectures, films, plays, and text readings, students examine various aspects of theater, including history, aesthetics, criticism, and production. The course provides a general background in theater and an opportunity to develop an understanding and appreciation of this art form.

**104-3 Moral Decision.** Introduction to contemporary and perennial problems of personal and social morality, and to methods proposed for their resolution by great thinkers of past and present.

**122-3 Appreciation of Literature.** A study of masterpieces of fiction, drama, and poetry stressing the timeless nature of world literature. This course is designed to teach and delight by reading, among others, the great works of Shakespeare, Whitman, Poe, Lewis Carroll, Kafka, Arthur Miller, Camus, Sylvia Plath, and Kurt Vonnegut.

**200-3 Oral Interpretation of Literature.** Beginning study of the oral interpretation of literature: appreciation, analysis, performance. Emphasis is upon literature as human experience and upon the creative role of the reader in engaging the literary text. Incidental costs not to exceed \$2.

**204-3 Meaning in the Visual Arts.** Designed to provide students a broad understanding of the history of art and its relation and implications to contemporary culture. Emphasis is placed on the relation of art to all disciplines, historical and contemporary.

**205-3 Innovation for the Contemporary Environment.** A variety of factors affecting creative individual and small group problem solving and its relevance to the contemporary environment are explored in theory and in practice. Purchase of book \$4.50.

**208-3 Elementary Logic.** Study of the basic forms of reasoning, with emphasis on the evaluation of arguments encountered in everyday life.

**213-3 East Asian Civilization.** An introduction to East Asian cultural traditions. Literature, philosophy, history, and art of China and Japan.

**215-3 Types of Religion.** An introductory study of selected world religions, emphasizing their meanings for their respective participants, their socio-cultural contexts, and their contributions to the religious history of civilization.

**221-3 Survival of Man.** (See GE-A 221.)

**230-3 Classical Civilization.** (Same as Women's Studies 260.) A study of the ancient Greeks and Romans, against a background of the world they inhabited. Literature, history, art, philosophy, and sex roles of these peoples, especially at the height of their respective civilizations.

**330-3 Classical Mythology.** An inquiry into the nature of myth and its relevance today while studying selected myths principally of the Greeks and Romans.

**340-3 The Western Cultural Tradition.** The historical evolution of the visual arts, architecture, and music in the context of society and literature, from ancient Greece to the present.

**345-3 Literature and the Modern World.** The study of poetry, drama, and fiction of British, American, and world literature written since 1914. Themes, patterns, and artistic achievements will be studied in connection with the intellectual and cultural backgrounds of the modern age.

## ORGANIZATION AND COMMUNICATION OF IDEAS (GE-D)

### Courses

**101-3 English Composition.** Basic principles of sentence structure, paragraphing, and organization. Purchase of handbook in the range of \$4 to \$5.

**106-3 Elementary Algebra.** For students with less than one year of high school algebra, this course serves as the prerequisite for the following courses: GE-D 107 and Mathematics 114 and 116. Completion of this course does not satisfy any University graduation requirement. In particular, it does not satisfy the general education mathematics requirement and it does not count toward the 120 hours needed for graduation. Mandatory Pass/Fail.

**107-3 Intermediate Algebra.** Properties and operations of the number system. Elementary operations with polynomials and factoring. Elementary operations with algebraic fractions. Exponents, roots, and radicals. First and second degree equations and inequalities. Functions and graphing. Systems of equations and inequalities. Exponential and logarithmic functions. Prerequisite: one year of high school algebra or GE-D 106.

**117-2 Expository Writing.** Practice in the writing of the composition, with emphasis on the logic of organization, demonstration, and expression. Prerequisite: GE-D 120 or GE-D 101 or equivalent.

**118-2 Technical Report Writing.** An introductory course in technical report presentation both written and oral, in library research methods, and in elementary business correspondence. Prerequisite: GE-D 120 or GE-D 101 or equivalent.

**119-2 Creative Writing.** Practice in the writing of narrative and poetry. Prerequisite: GE-D 120 or GE-D 101 or equivalent.

**120-3 Freshman Honors Composition.** Some important works in the history of thought by writers such as Plato, Dostoevsky, Freud, and Marx will be read and discussed. The intellectual



problems which they raise will become the subjects for essays in which students are required to show mastery of various methods of organizing exposition. This course fulfills the University freshman composition requirement. Prerequisite: top ten percent of the English section of ACT or the qualifying score on the CLEP test.

**152-3 Interpersonal Communication.** Designed to enable students to better understand and exercise interpersonal communication skills. Includes both theoretical content and performance sessions.

**153-3 Public Speaking.** Principles of communication as applied to public settings (speaker/audience). Developing research and speaking skills in the preparation and presentation of various types of messages.

## HUMAN HEALTH AND WELL-BEING (GE-E)

### Courses

Courses numbered 100-106 are basic or beginning level courses; those numbered 114 are intermediate level. The instructor may have the right to evaluate the skill level of the student at the beginning of the course and reassign the student to the proper level or another activity. Most GE-E physical education classes will be offered on a variable credit of one or two semester hours; one-hour courses meet two hours per week or equivalent; two-hour courses meet four hours per week or equivalent. Students will not be allowed to change from a one-hour to a two-hour section or vice versa after the University drop and add period. Students may not earn one semester hour for attending one-half of the sessions scheduled for a two semester hour course.

Appropriate clothing, as determined by instructor, is required for each class. For some activity classes, students are required to furnish equipment, provide own transportation, and pay a course charge.

**100-1 to 4 Restricted Physical Education.** For physically handicapped students as recommended by Health Service. Mandatory Pass/Fail.

**101-1 to 24 (1 or 2 credits per activity) Aquatics.** Swimming suits and towels are provided, however, students may wish to provide their own swimsuit, towel, and cap (optional). A fee of \$2 is required for all classes listed. (a) Beginning swimming. (b) Intermediate swimming. Prerequisite: 101a or equivalent. (c) Diving. Prerequisite: 101b or equivalent. (d) Skin diving. Prerequisite: consent of instructor. Course charge. (e) Scuba diving. Prerequisite: consent of instructor. Course charge, special sections have a charge for field trips. (f) Lifesaving. Prerequisite: pass swim test first day of class, 500 yards, tread water. (g) Canoeing. Prerequisite: pass swim test first day of class, tread water 15 minutes while clothed. (h) Synchronized swimming. Prerequisite: 101b or equivalent. (i) Aquacises. Prerequisite: 101b or equivalent. (j) Water sports. (k) Kayaking. Prerequisite: pass swim test first day of class, tread water 15 minutes while clothed, course charge. (l) Sailing. Prerequisite: pass swim test first day of class, tread water 15 minutes while clothed, own transportation required.

**102-1 to 10 (1 or 2 credits per activity) Fitness.** A fee of \$2 is required for all classes listed. (a) Physical Fitness. (b) Relaxation. (c) Weight Control. (d) Weight Training. (e) Yoga.

**103-1 to 16 (1 to 2 credits per activity) Dance.** A fee of \$2 is required for all classes listed. (a) Square. (b) Folk. (c) Traditional social. (d) Introduction to modern dance. Leotards and tights without feet are required. (f) Ballet. Women are required to wear leotards, pink tights, and pink ballet slippers; men are required to wear leotards, tights, and black or white ballet slippers. (g) Tap. (h) Current social.

**104-1 to 34 (1 to 2 credits per activity) Individual and Dual Activities.** A fee of \$2 is required for all classes listed except 104c and 104k. (a) Archery. Eight arrows required. (b) Badminton. Three shuttlecocks required. (c) Bowling. Lane fee \$15 and bowling shoes required; shoe rental available. (d) Distance running. (e) Cycling. Cycle required. (f) Fencing. Glove required. (g) Fly and bait casting. Rod and reel required. (h) Golf. Five hard covered practice balls required. (i) Gymnastics apparatus. (j) Handball. Glove and ball required. (k) Horseback riding. Course charge, own transportation required. (l) Orienteering. Own transportation required. (m) Racquetball. Racquet and one can of balls required. (n) Tennis. Racquet and one can of new balls required. (o) Track and Field. (p) Stunts and Tumbling. (q) Wrestling.

**105-1 to 12 (1 or 2 credits per activity) Team Activities.** A fee of \$2 is required for all classes listed. All classes are coeducational. (a) Basketball. (b) Flag Football. (c) Floor Hockey. (d) Soccer. (e) Softball Glove required for 12" softball. (f) Volleyball.

**106-1 to 6 (1 or 2 credits per activity) Martial Arts.** A fee of \$2 is required for all classes listed. (a) Self Defense. (b) Judo. Judo uniform required. (c) Karate. Karate uniform required.

**107-2 Life, Leisure, and Recreation.** Introduction to the meaning, challenges, and problems of leisure. Analyzes leisure's relation to work, education, religion, recreation, and the totality of life. An attempt is made to help students develop insights, values, and attitudes for self-realization and individual fulfillment in leisure pursuits. For non-recreation majors only.



**114-1 to 4 (1 or 2 credits per activity) Intermediate Individual and Dual Activity.** (c) Bowling. Prerequisite: 104c or equivalent. Lane fee \$15 and bowling shoes required; shoe rental available. (f) Fencing. Prerequisite: 104f or equivalent. Glove required. Fee of \$2 required. (n) Tennis. Prerequisite: 104n or equivalent. Racquet and one can of new balls required. Fee of \$2 required. **201-2 Healthful Living.** Personal and community health. Designed to meet general health education needs and to develop wholesome health attitudes and practices in college students. **236-2 Nutritional Ecology of Man.** Interaction between people and their environment. Emphasis on nutritional implications of our social, biological, and physical surroundings. Purchase of supplies ranging from \$4 to \$5.

## Accountancy (Department)

Accounting is the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information. Such information is required and used by parties, both internal and external to a business, a not-for-profit organization, and other entities.

The curriculum is designed to prepare a student with basic conceptual accounting and business knowledge necessary to develop a foundation for accounting career development. The curriculum consists of three segments, each designed for a specific purpose. The general education segment is designed to develop students' capacity for inquiry, abstract logical thinking, and critical analysis. A knowledge of humanities, arts, sciences, and general literacy which includes writing, reading, speaking, and listening provides the broad knowledge base and skills upon which to build professional study. The second segment provides general business and professional accounting education. The primary purpose of this segment is to provide students with the knowledge, sensitivities, and abilities all accountants should have for entry into the accounting profession and the capacity to apply these qualities under reasonable supervision. A broad systems orientation as well as a more specific professional accountancy orientation is developed within this segment. The third segment dealing with specialization is very limited at the undergraduate level. A student desiring to specialize in taxation, information systems, auditing, not-for-profit, or other areas should consider graduate study through a fifth year and the Master of Accountancy degree. The five year sequence is recommended by most authoritative accounting groups.

Accounting majors must achieve a 2.00 grade point average in accounting prefix courses taken at Southern Illinois University, as well as meet the College of Business and Administration's graduation requirement of 2.00 grade point average in business-prefix courses taken at Southern Illinois University. In addition they must also achieve a grade of C or better in accounting-prerequisite courses taken at Southern Illinois University and offered to satisfy the requirements of the professional business core and the major in accounting.

## Accounting (Major, Courses)

### Bachelor of Science Degree, College of Business and Administration

<i>General Education Requirements</i> . . . . .	45
<i>Professional Business Core (see page 81)</i> . . . . .	40-43
<i>Requirements for Major in Accounting</i> . . . . .	24
Accounting 321 and 322 (financial) . . . . .	6
Accounting 331 (managerial) . . . . .	3
Accounting 341 (tax) . . . . .	3
Accounting 351 (systems) . . . . .	3
Accounting 361 (auditing) . . . . .	3
Accounting 400-level electives. At least 3 hours must be from courses numbered 420 through 469 . . . . .	6

Electives .....	8-11
Total .....	120

Courses

**210-3 Accounting Principles and Control.** Prevalent accounting principles and practices employed in business organizations. Accumulation of data and usefulness of reports are considered. Tax implications of business studied. Not open to students with a major in the College of Business and Administration. No credit given for 210 if credit is claimed for 220.

**220-3 Accounting I.** Basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation and interpretation. Asset liability and owners' equity valuation and their relationship to income determination. No credit given for 220 if credit is claimed for 210. Prerequisite: sophomore standing.

**230-3 Accounting II.** A continuation of Accounting I with emphasis on the analysis and interpretation of accounting reports including ratios and funds flow analysis. The use of accounting information for managerial planning, control, and decision making through budgeting, cost and variance analyses, and responsibility accounting. Prerequisite: 220.

**240-3 Individual Income Tax.** Preparation of income tax returns. Federal income tax as applied to individuals. No credit given for 240 if credit is claimed for 341. Not open to those with a major in accounting.

**321-3 Intermediate Accounting I.** Current accounting principles and procedures relating to elements of financial reporting. Particular emphasis on current and fixed asset valuation. Prerequisite: a grade of C or better in both 220 and 230 or equivalent; junior standing or consent of department.

**322-3 Intermediate Accounting II.** Continuation of the study of accounting principles and procedures with emphasis on liabilities, corporate capital, and income determination. Preparation and use of special statements; analysis and interpretation of statements. Prerequisite: 321 with grade of C or better.

**331-3 Cost Accounting.** Interpretation and managerial implications of material, labor, and overhead for job order, process and standard cost systems, cost-volume-profit relationships, direct costing, and budgeting. Accounting for complex process production flows, joint and by-products, spoilage, and scrap. Responsibility accounting and reporting. Prerequisite: 230 with grade of C or better or consent of department.

**341-3 Introduction to Taxation.** Background, principles, and procedures for the determination of taxable income as a basis for federal income tax. Particular attention is given those aspects which are at variance with usual accounting treatment in the determination of net income. Includes practice in the methodology of tax solutions. No credit given for 341 if credit is claimed for 240. Prerequisite: a grade of C or better in both 220, 230, or equivalent courses; junior standing or consent of department.

**351-3 Accounting Information Systems.** Accounting systems design and installation. The study of accounting information systems, including computer-oriented systems, with emphasis on the information and control functions of the management decision-making process. Prerequisite: a grade of C or better in both 322 and 331; Computer Science 212 or equivalent.

**361-3 Auditing.** Standards, objectives, and procedures involved in examining and reporting on financial statements of business organizations. Prerequisite: a grade of C or better in 322.

**421-3 Advanced Accounting.** Accounting principles and procedures relating to specialized topics, including partnership equity, installment and consignment sales, fiduciaries, international operations, branches, and business combinations. Prerequisite: 322 with grade of C or better.

**422-3 Current Development in Accounting Theory.** Critical analysis of current developments in accounting theory, especially as reflected in the publications of major accounting associations. Prerequisite: 322 with grade of C or better.

**431-3 Advanced Cost Accounting.** Managerial decision making; profit planning and control through relevant costing, return on investment and transfer pricing, determination of cost behavior patterns, analysis of variances, capital budgeting, inventory models, probabilities, statistical methods, and operations research. Prerequisite: 331 with grade of C or better.

**441-3 Advanced Tax.** Study of income tax problems which arise from sole proprietorship, partnership, corporation, estate, and trust of organization. Brief study of social security, federal and state estate tax and gift tax. Student does research in source materials in arriving at solutions of complicated problems. Prerequisite: 341 with grade of C or better.

**451-3 Advanced Accounting Information Systems.** A review of current systems design and operation methodologies with special attention to the advantages and disadvantages these provide to an integrated information system. Prerequisite: 351 with grade of C or better.

**461-3 Advanced Auditing.** The study and application of selected auditing concepts and techniques. Hands-on application will be emphasized. Prerequisite: 361 with grade of C or better.

**471-3 Accounting for Public Organizations.** Financial and managerial accounting concepts peculiar to the planning and administration of public and quasi-public organizations, such as governmental units, institutions, and charitable organizations. Includes the conventional budgetary-appropriation process, as well as some of the more recent accounting developments related to public decision making. Prerequisite: 230 with grade of C or better.



**491-1 to 6 Independent Study in Accountancy.** Independent study of specialized aspects of accountancy not available through regularly scheduled courses. Prerequisite: a grade of *C* or better in each of 322, 331, 341, and consent of department.

**495-1 to 6 Internship.** Supervised work experience in professional accounting. Not for graduate credit. Prerequisite: outstanding record in accounting and recommendation of the departmental committee on internship.

**521-3 Financial Accounting Concepts.**

**522-3 Financial Accounting Theory.**

**529-3 Seminar in Financial Accounting.**

**531-3 Managerial Accounting and Control Concepts.**

**532-3 Controllership.**

**541-3 Tax Concepts.**

**542-3 Tax Research and Procedure.**

**543-3 Corporate Taxation.**

**544-3 Partnership Taxation.**

**545-3 Estate Planning.**

**546-3 Seminar: Selected Tax Topics.**

**551-3 Accounting Information Systems Concepts.**

**552-3 Accounting Information Systems II.**

**561-3 Auditing Concepts.**

**562-3 Advanced Auditing Topics.**

**571-3 Not-For-Profit Accounting.**

**590-3 Seminar in Accounting.**

**591-1 to 6 Independent Study.**

**599-3 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Administration of Justice (Major, Courses)

The Bachelor of Science degree with a major in administration of justice meets the career objectives of students interested in law enforcement, corrections, juvenile services, and other roles in social and criminal justice.

Five areas of specialization – law enforcement, security management, correctional program services, correctional management, and juvenile justice and delinquency prevention – have been delineated to give a range of choices suitable for most students preparing for careers in a field of criminal justice. The policy, however, is to fit course requirements to the student's career objectives if none of these specializations are appropriate. In such situations, the student will be required to take the core courses and, under the supervision of the adviser, develop an appropriate battery of courses in lieu of one of the five areas of specialization.

Qualified students may be admitted to the Capstone Program with a major in Administration of Justice. The Capstone Program is explained in Chapter 3.

Field internship placement is an important element in the program and internships are encouraged for qualified students.

### Bachelor of Science Degree, College of Human Resources

#### ADMINISTRATION OF JUSTICE MAJOR – LAW ENFORCEMENT SPECIALIZATION

*General Education Requirements* . . . . . 45

*Requirements for Major in Administration of Justice* . . . . . 37

Core Requirements: 201, 290, 301, 310, 316. . . . . 16

Law Enforcement Specialization Requirements: 202, 302,

303, plus 12 hours selected from 403a, 403b, 403c, 415,

460, 471, 472, 492. . . . . 21

*Minor* . . . . . 18

Spanish, Computer Science, one of the physical or social sciences or a group of accounting courses to substitute for the minor is recommended.

*Electives* . . . . . 20

Administration of Justice 395, other Administration



of Justice courses, Health Education 334, Political Science 436 recommended.	
Total.....	120
ADMINISTRATION OF JUSTICE MAJOR – SECURITY MANAGEMENT SPECIALIZATION	
General Education Requirements .....	45
GE-B 108, GE-B 202, GE-D 101, GE-D 118, GE-D 107, GE-D 153 recommended.	
Requirements for Major in Administration of Justice .....	42
Core Requirements: 201, 290, 301, 310, 316.....	16
Security Management Specialization Requirements: 302 or 471; 450; Health Education 334; Industrial Technology 465; Psychology 323; Political Science 436 or 332; Accounting 220 .....	21
Security Management Specialization Electives: 5 hours selected from 303, 344, 395, 403a, 403b, 403c, 415, 471, 490, 492, Accounting 230, Management 304, Psychology 320 .....	5
Minor.....	18
Computer Science, a foreign language, one of the related social sciences or a group of accounting, management, or law enforcement courses approved by the department.	
Electives.....	15
Computer Science 102, 202, or 212, Industrial Technology 341, Psychology 320, Political Science 445, 468 recommended.	
Total.....	120
ADMINISTRATION OF JUSTICE MAJOR – JUVENILE JUSTICE AND DELINQUENCY PREVENTION SPECIALIZATION	
General Education Requirements .....	45
Requirements for Major in Administration of Justice .....	36
Core Requirements: 201, 290, 301, 310, 316.....	16
Juvenile Justice and Delinquency Prevention Specialization Requirements: 15 hours selected from 300, 344, 348, 471, 473, 485a, 485b.....	15
Juvenile Justice and Delinquency Prevention Specialization Electives: 5 hours selected from 390, 395, 399, 402, 408, 415, 472, 490, 492 .....	5
Minor.....	18
Electives.....	21
Total.....	120
ADMINISTRATION OF JUSTICE – CORRECTIONAL PROGRAM SERVICES SPECIALIZATION	
General Education Requirements .....	45
Requirements for Major in Administration of Justice .....	36
Core Requirements: 201, 290, 301, 310, 316.....	16
Correctional Program Services Specialization Requirements: 15 hours selected from 300, 344, 348, 471, 473, 485a, 485b .....	15
Correctional Program Services Specialization Electives: 5 hours selected from 390, 395, 399, 402, 472, 490, 492.....	5
Minor.....	18
Electives.....	21
Total.....	120

## ADMINISTRATION OF JUSTICE MAJOR – CORRECTIONAL MANAGEMENT SPECIALIZATION

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Administration of Justice</i> .....	36
Core Requirements: 201, 290, 301, 310, 316. ....	16
Correctional Management Specialization Requirements:	
15 hours selected from 300, 471, 472, 485a, 485b. ....	15
Correctional Management Specialization Electives:	
5 hours selected from 390, 395, 399, 408,	
490, 492 .....	5
<i>Minor</i> .....	18
<i>Electives</i> .....	21
<i>Total</i> .....	120

Not more than three hours of 395 may be counted toward the major.

**Minor**

A minor in administration of justice consists of 201 and 290 plus any combination of administration of justice courses to reach a total of 18 semester hours.

**Courses**

**201-3 Introduction to Criminal Justice System.** Survey of the agencies and processes involved in the administration of criminal justice. The history of English law; the criminal justice process and system, including underlying ideologies, procedures, fundamental legal concepts, and the roles and functions of police, courts, and correctional services.

**202-3 Law Enforcement Services.** An overview of the services provided by law enforcement agencies. Emphasis will be placed on the nature, scope, and functions of various agency work units in their provision of services to prevent crime, detect and apprehend offenders, provide regulatory services, and specialized community centered services.

**290-3 Introduction to Criminal Behavior.** Multidisciplinary study of the etiology and patterning of offender behavior.

**300-3 Assessment of Offenders.** Introduction to the procedures and issues of identifying and evaluating individual differences in offenders and among classes of offenders; analysis of typical diagnostic methods. Prerequisite: 201 and 290 or consent of instructor.

**301-3 Human Relations in Criminal Justice.** Delineation of major interactive patterns among staff members, between staff and clients, and among clients of probation and parole agencies and correctional agencies; introduction to problems of communication, bureaucracy, and leadership. Prerequisite: 201 and 290 or consent of instructor.

**302-3 Introduction to Enforcement Administration.** An introduction to the principles of administration and organization of enforcement agencies, including policy, security, conservation, and investigation. Prerequisite: 201.

**303-3 Behavioral Aspects of Investigation.** Principles of behavioral science are applied to the recurrent patterns of criminal investigation as a social and fact-finding process; survey of criminalistics. Prerequisite: 302.

**310-3 Introduction to Criminal Law.** The nature and theories of law and social control; legal reasoning and case analysis; simple legal research; statutory construction; principles and history of punishment; constitutional, historical, and general legal principles applicable to the criminal law.

**316-4 Introduction to Criminal Justice Research.** A basic introduction to the scientific perspective, relationship of research and theory, research design, data collection, data analysis, reporting of research and program evaluation. Emphasis on problems peculiar to criminological research. Prerequisite: 201 and 290 or consent of instructor.

**344-2 Drug Use.** Types of drugs, drug impact on the American culture, legal and illegal uses of drugs, offenses related to drug use, reaction of the criminal justice system to drugs and drug users, and the treatment and prevention programs coping with drug use. Prerequisite: 201 and 290 or consent of instructor.

**348-3 Treatment Modalities.** Various treatment methods used throughout the criminal justice system. Explanation and evaluation of various treatment techniques; e.g., behavior modification, transactional analysis and other individual and group therapies. Prerequisite: 201 and 290 or consent of instructor.

**390-1 to 4 Readings in the Administration of Justice.** In-depth, introductory and advanced readings in areas not covered in other Administration of Justice courses. The student must submit a statement describing the topic and relevant reading materials to the faculty member sponsoring the student's readings. Prerequisite: 201 and 290 and consent of instructor.

**395-3 to 15 Supervised Field Experiences in the Administration of Justice.** Familiarization



and direct experience in applied settings. Under supervision of faculty and adjunct staff, the student assumes a student-participant role in the criminal justice agency. Student must submit internship application during the first thirty days of the preceding spring or fall semester. Prerequisite: 201, 290, 12 hours of administration of justice courses and consent of department. Mandatory Pass/Fail.

**399-3 Senior Seminar.** An evaluation of agency policy and practices observed during the student's field experiences, and synthesis with classroom experiences. Emphasis will also be given to planning a professional career. Prerequisite: 395 or consent of instructor.

**402-3 Group and Family Treatment in Criminal Justice.** Presentation of theoretical knowledge and practical techniques utilized in major group and family treatment approaches for adults and juveniles in institutions, community-based correctional programs, and transitional living situations.

**403-3 to 9 (3 per topic) Enforcement Operations.** (a) Advanced investigation; (b) Enforcement management; (c) Enforcement discretion. This course offering provides a broad coverage of law enforcement activities from detailed investigative work through specialized management techniques required. Some sections of the course may be offered only every other year. Prerequisite: (a) 303 or graduate status; (b) 202 or graduate status or consent of instructor.

**408-3 Criminal Procedure.** An introduction to the procedural aspects of criminal law pertaining to police powers in connection with the laws of arrest, search and seizure, the exclusionary rule, civil liberties, eavesdropping, confessions, and related decision-making factors. Prerequisite: 310.

**409-3 Constitutional Rights of Criminal Justice Personnel.** A review of the historical development of civil rights; due process, equal protection, and cruel and unusual punishment theory. Examines court decisions that shape civil rights and affirmative action, the rights of criminal justice personnel, including unionization, free speech, and freedom from arbitrary dismissal.

**415-3 Prevention of Crime and Delinquency.** Multidisciplinary analysis of the functions, goals, and effectiveness of measures to forestall delinquency and crime. Etiology of delinquent behaviors as related to community institutions such as police, courts, corrections, mental health clinics, schools, churches, and citizen groups. Prerequisite: 201 and 290 or consent of instructor.

**416-3 Methods of Criminal Justice Research.** The principles of scientific inquiry as applied to the study of the criminal justice system. Overview and examples of project design, evaluative research, methodology and statistical techniques appropriate to criminal justice research. Strongly recommended for students who plan to conduct empirical research in fulfillment of master's thesis requirement. Prerequisite: 201 and 290 or consent of instructor.

**417-3 Research Practicum in the Administration of Justice.** Application of the principles set forth in 416. Experience in the various phases of an actual research project, including project design, data collection and analysis, and effective communication of results via written reports. Prerequisite: 201 and 290 and 416 or consent of instructor.

**450-3 Public and Private Security.** An overview of important issues related to internal and external security and loss prevention. Covers security's historical development; its current role; different careers available; the prevention, detection, and reduction of hazards stemming from both internal and external sources; as well as certain administrative aspects.

**451-3 Forensic Interrogation.** Forum focusing on forensic interrogation; conceptual framework for understanding the behavioral and psychological aspects of the process; discussion of its historical and philosophical development, general use in criminal and private security investigations, legal proceedings, and importance in a democratic society. Students receive both theoretical grounding and hands-on experience. Prerequisite: consent of instructor.

**460-3 Women and the Criminal Justice System.** Addresses the topics of women as offenders, as victims and as workers in the criminal justice system. Prerequisite: 201 and 290 or consent of instructor.

**471-3 Principles of Management in the Administration of Justice.** Basic principles and techniques of management in law enforcement, correctional, and other criminal justice agencies. Prerequisite: 201 and 290 or consent of instructor.

**472-3 The American Correctional System.** (Same as Sociology 472.) A survey of the correctional field, covering probation, institutional treatment, and parole. Historical development, organizational structure, program content, and current problems. Prerequisite: 201 and 290 or consent of instructor.

**473-4 Juvenile Delinquency.** (See Sociology 473.) Prerequisite: 201 and 290 or consent of instructor.

**476-3 Crime and Criminal Justice: International Dimensions.** Examination of sociocultural and political factors shaping criminality and responses to crime around the world. Similarities and differences in criminogenic conditions and practices of law enforcement and corrections are traced. Prerequisite: 201 and 290 or consent of instructor.

**485-3 to 6 (3 per topic) Selected Topics in Correctional Program Services.** (a) Correctional case management. Prepares students to become practitioners, supervisors, and administrators in probation, parole, correctional institutions, and community-based programs in roles traditionally assigned to probation and parole officers, correctional counselors, social workers, and similar titles. Recognizes the importance of the case manager as a planner, mobilizer of resources, advocate, and community organizer. (b) Corrections and the community. Traditional correctional functions are redefined to emphasize development of resources of community at large, diversion of convicted



offenders from institutions and direct involvement of correctional programs in community affairs. Prerequisite: three administration of justice courses or consent of instructor.

**490-1 to 3 Independent Study in the Administration of Justice.** Supervised readings or independent investigative projects in the various aspects of crime control, treatment of offenders; and management of programs of law enforcement, courts, and correctional agencies. May be repeated up to a maximum of three credit hours. Prerequisite: 201 and 290 or consent of instructor.

**492-2 to 6 (2 to 3 per semester) Contemporary Issues in Administration of Justice.** A forum for focusing on special interest topics depending on the availability of staff, visiting professors, and other selected instructional resources to cover a contemporary issue of concern to students and the faculty. May re-enroll for a maximum of six credits. Prerequisite: 201 and 290 or consent of instructor.

**500-3 History and Philosophy of Criminal Justice System.**

**504-3 Criminological Theory.**

**516-3 to 6 (3 per topic) Seminar in Advanced Criminal Justice Research.**

**562-3 Fundamental Legal Systems in Criminal Justice.**

**571-3 Correctional Systems in Criminal Justice.**

**572-4 Seminar in Criminology.**

**578-1 to 4 Seminar in Correctional Rehabilitation Counseling.**

**580-3 Planning for Change in the Administration of Justice.**

**582-3 Criminal Law and the Correctional Process.**

**584-3 Seminar in Criminological Program Management.**

**587-3 Seminar in Law Enforcement.**

**588-3 to 9 (3 per topic) Selected Topics in Law Enforcement.**

**590-1 to 3 Supervised Readings in Selected Subjects.**

**591-3 to 6 Individual Research.**

**592-3 Advanced Seminar in Administration of Justice.**

**595A-3 or 6 Supervised Field Work (Internship).**

**595B-3 or 6 Supervised Field Work (Internship).**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Advanced Technical Studies (Division, Courses)

The School of Technical Careers offers the Bachelor of Science degree with seven majors. Five majors are described below and the others are described in this chapter under consumer economics and family management or interior design.

The Bachelor of Science degree programs are designed to provide technically-oriented programs of study which are made up of required core courses, program major requirements, approved major electives, approved technical electives, and the University's General Education requirements. Majors are available for students qualifying for enrollment in aviation management, career development which is offered only on-campus, electronics management, fire science management, and health care management.

Students with educational and occupational backgrounds and career objectives in areas related to aviation, electronics, fire science, and health care are encouraged to pursue the major areas of study. Details of each major are listed below. Students with technical backgrounds and career objectives in areas other than those listed above are encouraged to pursue the career development major.

Students who have earned a minimum of 26 semester hours of recognized post-secondary credit or equivalent as determined by the academic unit or with the consent of the department are eligible for admission. Students must have a cumulative 2.00 grade point average or better, based on course work at Southern Illinois University. Transfer students admitted in good standing are also eligible for admission. A minimum of 30 semester hours in the core and major courses must be taken with Southern Illinois University, with at least 24 of these hours taken after admission to the program. Students must complete all course work in the program core and major requirements and elective areas with a 2.00 grade point average or better. Additionally, students must fulfill all University requirements including general education, total hour requirements, residence requirements, and average requirements.

Qualified students may be admitted to the Capstone option for completion of

University general education requirements. The Capstone option is explained in Chapter 3. Graduates of two-year occupational programs are encouraged to investigate the option. Qualified students can fulfill the requirements for the Bachelor of Science degree in technical careers by completing 60 additional semester hours approved by a Capstone adviser.

Provision is made for recognizing many forms of previous educational, military, and occupational experience for credit toward the degree. Credit is established by departmental evaluation. In addition, field internships and independent study opportunities are available.

Persons interested in the on-campus programs should contact the director, Division of Advanced Technical Studies, concerning advisement, program requirements, and other specifics. Persons interested in off-campus programs should contact the director, Office of Off-Campus Academic Programs.

Admission to the Bachelor of Science degree program in technical careers does not imply admission to any School of Technical Careers associate degree program.

AVIATION MANAGEMENT (Major)

This baccalaureate program is designed to serve students already in the aviation industry or with a career goal of entering one of the key segments of the aviation industry. These segments include aviation manufacturing, the airlines, general aviation, military aviation, and government agencies such as the Federal Aviation Administration, state aviation agencies, or local airport authorities.

The aviation management major is also designed to build upon technical training in aviation maintenance, flight, avionics technology, air traffic control, aircraft operations support, or other aviation-related fields. The technical training may be gained through Southern Illinois University, other post-secondary institutions, proprietary schools, the military, government agencies (international or domestic), or through government certified flight or maintenance training schools. Students entering the aviation management major are encouraged to complete the requirements of an aviation-related associate degree under the provision of the Capstone option as explained in Chapter 3. As an alternative to an associate degree in aviation, students in aviation management should have aviation-related work experience, internship experience, or technical training. Finally, concurrent enrollment in aviation-related degree programs, internships, or technical training is encouraged for those students not having prior aviation training, experience, or education.

This program meets many of the requirements of the University's Federal Aviation Administration-approved airway science curriculum. The airway science curriculum qualifies individuals for direct placement on the FAA register for employment. For further information on the airway science curriculum, contact the Division of Advanced Technical Studies, School of Technical Careers.

Bachelor of Science Degree, School of Technical Courses

General Education Requirements . . . . .	45
Requirements for Major in Aviation Management . . . . .	48
Core Requirements: Advanced Technical Studies	
364, 416, and two of the following: 332, 383, 421 . . . . .	12
Fifteen hours selected from Advanced Technical	
Studies 370, 371, 372, 373, 374, 375, 376, 377, 383, 386, 401 . . . . .	15
Twelve hours of internship, independent study, or approved	
equivalent . . . . .	12
Nine hours of aviation management electives approved by	
the adviser . . . . .	9
Approved Career Electives . . . . .	27
Total . . . . .	120



CAREER DEVELOPMENT (Major)

The career development major is offered on-campus only. It is designed specifically for students who have entered career paths for which there are no traditional baccalaureate degrees. Students develop individualized learning contracts with the assistance of faculty advisers. The program is designed to build upon a person's education and work experience through courses selected to meet technical career objectives. It is ideally suited for community college and technical institute graduates holding occupationally-oriented associate degrees. These students are encouraged to take advantage of the Capstone option explained in Chapter 3. Students interested in technical areas not available through associate degrees are also encouraged to consider this major. The individualized nature of the program affords the flexibility to meet the needs of students from many diverse technical backgrounds who desire to develop and expand the skills to enhance their career opportunities.

Graduates find employment in business and industry in such fields as construction, automotive, data processing systems, office management, architectural drafting/design, graphic design, advertising, property management, small business applications, and allied health careers.

Bachelor of Science Degree, School of Technical Careers

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Career Development</i> .....	48
Core Requirements: Advanced Technical Studies 364, 416, and two of the following: 332, 383, 421 .....	12
Twenty-four hours of approved career development requirements with at least 15 hours at the 300-400 level .....	24
Twelve hours of internship, independent study, or approved equivalent .....	12
<i>Approved Career Electives</i> .....	27
<i>Total</i> .....	120

ELECTRONICS MANAGEMENT (Major)

This major is designed to provide advanced practical course work in the areas of electronics, management, supervision, and technology for individuals who have technical training in electronics-oriented fields from colleges and universities, technical institutes, community colleges, proprietary institutions, industry-related programs, or military technical schools. The major also builds upon career specialties in the army, navy, marine corps, or air force. The specialties include ground equipment electronics systems, communication, navigation, avionics instruments, radar and others in the appropriate career specialty listing.

Opportunities for employment and advancement appear to be excellent with a wide range of initial job selectivity.

Bachelor of Science Degree, School of Technical Careers

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Electronics Management</i> .....	48
Core Requirements: Advanced Technical Studies 364, 416, and two of the following 332, 383, 421 .....	12
Fifteen hours selected from Electronics Technology 301, 302, 303, 311, 312, 313, Advanced Technical Studies 340, 341, 342, 343, 383, 412. ....	15
Twelve hours of internship, independent study, or approved equivalent .....	12



Nine hours of electronics management electives approved by the adviser	9
Approved Career Electives	27
Total	120

FIRE SCIENCE MANAGEMENT (Major)

This major is designed to provide advanced practical course work in the areas of management and supervision. It is designed primarily for those who hold or are nearing completion of the Associate in Applied Science degree or its equivalent in a fire science-related field from a technical institute or community college. The major is presently offered only at off-campus sites. Contact the Office of Off-Campus Academic Programs for information on current availability.

Many graduates are employed in supervisory and management positions in the fire service, insurance industry, fire equipment manufacturing industry, and related fields.

Bachelor of Science Degree, School of Technical Careers

General Education Requirements	45
Requirements for Major in Fire Science Management	48
Core Requirements: Advanced Technical Studies 364, 416, and two of the following 332, 383, 421	12
Fifteen hours selected from Advanced Technical Studies 387, 402, 412, Political Science 340, Industrial Technology 465	15
Twelve hours of internship, independent study, or approved equivalent	12
Nine hours of fire science management electives approved by the adviser	9
Approved Career Electives	27
Total	120

HEALTH CARE MANAGEMENT (Major)

This major is designed to provide course work and experience in the areas of management and supervision for individuals who have training in health-oriented fields from colleges and universities, technical institutes, community colleges, proprietary institutions, or military technical schools. Graduates from diploma programs may also be eligible for admission.

The major builds upon many career specialties. These include, but are not limited to, dental hygiene, dental technology, laboratory technology, medical assisting, medical corps, medical records, medical service corps, mortuary science, nursing, physical therapist assistant, radiologic technology, and respiratory therapy.

Many graduates are obtaining management and supervisory positions in various health and medical care facilities such as hospitals, nursing homes, public health departments, voluntary health agencies, and health care training institutions.

Bachelor of Science Degree, School of Technical Careers

General Education Requirements	45
Requirements for Major in Health Care Management	48
Core Requirements: Advanced Technical Studies 364, 416, and two of the following 332, 383, 421	12
Fifteen hours selected from Advanced Technical Studies 380, 381, 382, 383, 384, 385, 388, 412	15

Twelve hours of internship, independent study or approved equivalent.....	12
Nine hours of health care management electives approved by the adviser.....	9
<i>Approved Career Electives</i> .....	27
<i>Total</i> .....	120

## Courses

**250-3 Basic Air Traffic Control.** This course provides instruction in basic air control procedures and phraseology used by personnel providing air traffic control services. Students will become familiar with Federal Aviation Administration handbooks and federal aviation regulations that pertain to the operational responsibilities of an air traffic controller.

**319-1 to 15 Occupational Internship.** Each student will be assigned to a University approved organization engaged in activities related to the student's academic program and career objectives. The student will perform duties and services as assigned by the preceptor and coordinator. Reports and assignments are required to be completed by the student. Hours and credits to be individually arranged. Mandatory Pass/Fail.

**320-1 to 10 Work Study Internship.** Provides work-study students with an opportunity to participate in an on-campus work experience related to their academic program and career objectives. Hours and credits are to be individually arranged. Mandatory Pass/Fail.

**321-3 Seminar in Technical Careers.** The purpose of this course is to allow those School of Technical Careers baccalaureate students who have had little or no experience within their chosen careers to become acquainted with the current state of the professions to which they aspire. The object is to help students prepare themselves for maximum competitiveness within the job market through awareness of existing job opportunities, knowledge of job requirements, and selection of course work appropriate to meet specifications of available positions.

**332-3 Labor-Management Problems.** Students will gain a general understanding of the economic situation of which labor-management problems represent a subset. They will develop a perspective on the evolution of labor relations in the United States economy and on how the interaction of labor and management differs throughout the world. The collective bargaining section introduces the student to the techniques of bargaining used by labor and management in their ongoing interactions. Lecture three hours.

**340-3 Application of Solid State Devices.** A technical management approach to the practical application of solid state devices in business and industry. Characteristics of these devices will be reviewed to promote understanding of the selection and application process. Special emphasis will be given to the application of linear integrated circuits as well as the operational amplifier and its application instrumentation. Prerequisite: consent of department.

**341-3 Digital Circuit Applications.** Applications of digital electronic devices and circuits in business and industry. Geared to the needs of the technical manager, this course builds upon the student's knowledge of basic electronics theory. Basic principles of subsystems are reviewed to assist the student in understanding their selection and application to business and industrial settings. Prerequisite: 340 or consent of department.

**342-3 Microcomputer Applications.** The microcomputer approached from the standpoint of the technical manager. The primary emphasis of this course is on the practical uses of microcomputer systems in business and industry. Basic characteristics and principles of microcomputers will be reviewed to provide an understanding of applications in specific business and industrial settings. Prerequisite: 341 or consent of department.

**343-3 Microcomputer Application Laboratory.** Laboratory experiences selected to reinforce microcomputer characteristics and practical applications in business and industry. Students sample applications of microcomputer systems on an operational microprocessor. Prerequisite: previous or concurrent enrollment in 342, may be independent study.

**350-1 to 32 Technical Career Subjects.** In-depth competency and skill development and exploration of innovative techniques and procedures used in business, industry, professions, and health service occupations offered through various workshops, special short courses, and seminars. Hours and credit to be individually arranged. This course may be classified as independent study. Prerequisite: consent of instructor.

**361-3 Fiscal Aspects of Technical Management.** An introduction to fiscal structures and problems encountered in the technically oriented enterprise. Lecture three hours.

**362-3 Legal Aspects of Technical Management.** An introduction to the types of legal problems encountered in the technically oriented enterprise. Lecture three hours.

**363-3 to 15 (3, 3, 3, 3, 3) Special Topics in Technical Management.** Specialized study for the investigation of management problems relating to the student's career objective. (a) Management field experience. Structured practical experience in a controlled management environment. (b) Research management applications. Studies of management techniques as practiced in the profession. (c) Comparison analysis of organizational strategies in the professions. (d) Current trends. Readings regarding economic trends impacting upon the business or profession. (e) Employee relations. Study of the techniques of employee relationships to include the dynamics and procedures required for managing the work center. Need not be taken sequentially.



**364-3 Work Center Management.** A study of the problems of managing a small working unit (division, department, work center, section, etc.) within a larger unit (agency, company, regional office, etc.). Included items will be work center goals identification, staffing needs, monitoring of work process reporting, work center communications, and interpersonal relations within the work center. Lecture three hours.

**370-3 Airport Planning.** To acquaint the student with the basic concepts of airport planning and construction, as well as an investigation of various community characteristics and resources.

**371-3 Aviation Industry Regulation.** A study of the various regulatory agencies of the industry and their functions.

**372-3 Airport Management.** A study of the operation of an airport devoted to the phases of lighting, fuel systems, field marking, field buildings, hangars, and surrounding community.

**373-3 Airline Management.** A study of the administrative aspects of airline operation and management including a detailed study of airline organizational structure.

**374-3 General Aviation Operations.** A study of general aviation operations including fixed base operations (fuel, sales, flight training, charter, etc.), corporate aviation (business aviation, corporate flight departments, executive air fleets, etc.) and the general aviation aircraft manufacturing industry.

**375-3 Legal Aspects of Aviation.** The student will develop an awareness of air transportation. The course will emphasize basic law as it relates to contracts, personnel, liabilities, and legal authority of governmental units and agencies. Lecture three hours.

**376-3 Aviation Maintenance Management.** To familiarize the student with the functions and responsibilities of the aviation maintenance manager. Maintenance management at the fixed base operator, commuter/regional airline, and national air carrier levels will be studied. Aviation maintenance management problems areas will be reviewed using the case study method.

**377-3 Aviation Safety Management.** This course will survey the various aspects of aviation flight and ground safety management. Weather, air traffic control, mechanical and human factors in aviation safety management will be reviewed. Case studies of individual aviation accidents and incidents will be analyzed.

**378-3 National Airspace System.** This course provides instruction in the national airspace system, its purpose and major components. It defines the Federal Aviation Administration role in the operation, maintenance, and planning of the national airspace system. Prerequisite: 250 and consent of department.

**380-3 Seminar in Health Care Services.** Seminar on the various existing and emerging issues which affect control and implementation of health care services to consumers. Topics include but not limited to manpower, information, technology, materials, financing, and data utilization.

**381-3 Health Care Management.** A study of the principles of effective management techniques including planning, decision making, organizing, budgeting, communication, and direction.

**382-3 Health Economics.** An analysis of the economics of health care in the United States and its effect on society and the health care profession.

**383-3 Data Interpretation.** A course designed for students beginning their major program of study to examine data use in their respective professions. Emphasis will be placed upon an understanding of the basic principles and techniques involved with analysis, synthesis, and utilization of data.

**384-3 Equipment and Material Management in Health Facilities.** Prepares health care administrators with the necessary management tools to assure comfort, safety, and well-being of patients, hospital personnel, and visitors, and to focus their attention on sound maintenance management practices, materials procurement, storage and preservation, records keeping, and the utilities systems needed in a health care facility.

**385-3 Fiscal Aspects of Health Facilities.** An introduction to the fiscal problems encountered in the administration of health care facilities.

**386-3 Fiscal Aspects of Aviation Management.** An introduction to the fiscal problems encountered in the administration of aviation facilities.

**387-3 Fiscal Aspects of Fire Service.** An introduction to the fiscal problems encountered in the administration of fire service facilities.

**388-3 Legal Aspects of Health Care.** To supply the student an awareness of the legal requirements affecting health care facilities. The course will emphasize the basic law of contracts, consents, records, personnel, liabilities, privacy, and other routine functions. Successful students acquire an understanding of the need for legal counsel. Lecture three hours.

**401-3 Current Issues in Aviation Management.** A review of current problems affecting the aviation industry with particular emphasis on resource allocation, planning, and internal and external constraints. Not for graduate credit. Prerequisite: a course in economics or marketing, senior standing, consent of instructor.

**402-3 Current Issues in Fire Science Services.** A review of the current problems affecting the fire service with particular emphasis on resource allocation, planning, and constraints. Not for graduate credit.

**410-3 Fire Prevention and Inspection.** Laws and regulations affecting fire prevention; administering building and fire codes; interpreting building, fire prevention, and state fire marshall codes; and inspection procedures. Not for graduate credit.

**411-3 Fire Insurance Rating.** Analysis of fire hazards for computing fire insurance rates. Actu-



arial basis of rating schedules with particular emphasis on the analytic system for measurement of relative fire hazard. Not for graduate credit.

**412-3 Grantsmanship.** Provides the student with an understanding of the availability of public and private funding in a specific technical area, how to apply for such funds, the process for approving such applications for funding, how the grants are administered once awarded, and who the funding agencies, companies, or foundations are. Each student will prepare a grant proposal including objective statements, study methodology, work program, work schedule, program budget, end products, and overall packaging. Not for graduate credit.

**413-3 Nursing Home Management.** A study of the principles of nursing home management which examines administrative and staffing functions relating to clients, community, public policy, programming, and financing. Not for graduate credit. Prerequisite: junior standing or consent of department.

**416-1 to 4 Applications of Technical Information.** This course is designed to increase student competence in analyzing and utilizing the various types of technical information encountered by managers in technical fields. Materials fee of \$10 per credit hour will be charged students registered in individualized version of this course (Section 800). Not for graduate credit.

**421-1 to 3 Professional Development.** Introduces students to the various elements involved in obtaining a position in their chosen career field. Topics included are: personal inventories, placement services, employment agencies, interviewing techniques, resumes, letters of application, references, and employment tests. Each student will develop a portfolio including personal and professional information related to individual career goals. Not for graduate credit. Prerequisite: enrollment in School of Technical Careers baccalaureate program or consent of instructor.

**426-3 Technical Training for International Development.** A better understanding of the necessary relationships between technology, technical training, and development, especially in third world countries. The successful completion of this course allows for a more effective appreciation in the transfer of technical training from the United States to other developing areas of the world which may include not only other nations but also underdeveloped parts of the United States. Not for graduate credit.

## Aerospace Studies (Department, Courses)

Aerospace Studies is a voluntary course sequence leading to a commission as an officer in the United States Air Force. When commissioned, all officers must have at least a baccalaureate degree; hence completion of the program is contingent upon maintaining satisfactory progress toward graduation. Enrollment in the first two years (general military course) is unrestricted and no military obligation is incurred. Special students who do not intend to obtain a commission are welcome.

Acceptance into the last two years (professional officer course – POC level) is competitive and requires qualification on the Air Force Officer Qualifying Test and a physical examination. For some officer candidates, the field of concentration must be related to an officer career specialty in the air force. Students in the professional officer course do incur a military obligation. They are paid a monthly tax-free subsistence allowance. Graduate students who have two years remaining at the University, not counting summers, are eligible.

Qualified students may enter directly at the POC level without completing the general military course by attending a six-week field training course during the summer prior to entrance. Four years students attend a four-week field training course. Field training is conducted at air force bases and students are paid while attending.

Students are required to complete one three-hour course in mathematical reasoning as part of the program.

Leadership laboratory is a supervised laboratory taken concurrently with the aerospace studies courses. In the first two years, students develop leadership potential by participating in practical leadership situations, participating in and leading drill and ceremonies, learning customs and courtesies, and preparing for field training. In the final two years of AFROTC, students develop leadership potential by assuming command and staff responsibilities, supervising the GMC cadets, and implementing the goals and objectives of the leadership laboratory.

## Courses

**101-2 United States Air Force.** Evolution of modern aerospace power and concepts on which it was developed. Introduction to aerospace support forces. Includes airlift, research and development, logistics, and education and training. Prerequisite: concurrent enrollment in leadership laboratory.

**102-2 Aerospace Offensive and Defensive Forces.** Introduction to U.S. general purpose and strategic offense forces, and the constraints involved in the use of modern weapons. Introduction to concepts, organization, equipment, and procedures involved in strategic defense of the United States. Prerequisite: concurrent enrollment in leadership laboratory.

**201-2 The Development of Air Power I.** History of manned flight from pre-aircraft to end of World War II. Develops the themes of doctrine, technology and evolution of aircraft, and U.S. Air Force. Prerequisite: concurrent enrollment in leadership laboratory.

**202-2 The Development of Air Power II.** History of United States Air Force from separate military department status into early 1980's. Highlights the versatility of air power and the changing role of machines, people, and tactics in air warfare. Prerequisite: concurrent enrollment in leadership laboratory.

**258-4 Field Training Equivalency.** Work experience credit for 101, 102, 201, and 202. This credit will be evaluated by the Department of Aerospace Studies. Prerequisite: satisfactory completion of either the four-week or six-week field training course for AFROTC POC applicants.

**301-4 Management and Leadership I.** Student relates current management and leadership theory to problems faced by middle managers in a large bureaucracy, the United States Air Force. Examines individual motivation, organization dynamics, performance appraisal, and decision making. Practices writing and speaking styles appropriate to a large organization. Prerequisite: consent of instructor and concurrent enrollment in leadership laboratory. Non-AFROTC members may enroll with instructor consent.

**302-4 Management and Leadership II.** Continuation of 301. Students examine traditional and modern theories of leadership to define their own roles as leaders. Examine value conflict and conflict resolution for the middle manager. Prerequisite: 301 or consent of instructor and concurrent enrollment in leadership laboratory. Non-AFROTC members may enroll with instructor consent.

**401-4 Formulation of Defense Policy.** Student explores the dynamics of formulating and implementing American defense policy. Examines international political trends, fundamental causes of inter-state conflict, and domestic and international constraints which restrict the options available to American defense policy makers. Prerequisite: 302 or consent of instructor and concurrent enrollment in leadership laboratory. Non-AFROTC members may enroll with instructor consent. Not for graduate credit.

**402-4 Civil-Military Relations.** Student analyzes crucial questions about the role and functions of the military officer. Study military law and the law of armed conflict as they apply to the junior officer. Examines contemporary issues including social values and attitudes toward the military. Prerequisite: 401 or consent of instructor and concurrent enrollment in leadership laboratory. Non-AFROTC members may enroll with instructor consent. Not for graduate credit.

## African Studies (Minor)

African area studies is available through an interdisciplinary minor, involving courses in anthropology, Black American studies, geography, history, linguistics, political science, and religious studies. Each of these departments has one or more faculty who specialize in Africa and who are interested in assisting students wanting to study about Africa. The requirements for the African studies minor are listed below.

### Minor

The African studies minor consists of 15 hours with 9 hours in required core courses and 6 hours of electives.

**Required Core Courses:** 9 hours selected from Anthropology 470A, Black American Studies 225, 314a, b, History 387a, b, Political Science 465.

**Electives:** 6 hours selected from any courses not used as part of the core or Geography 365, Linguistics 450-3 (only when African languages are studied), Religious Studies 333, or 2-3 hours of reading courses on Africa sponsored by any of the departments listed above or below.



Suggested related courses which do not count toward the minor are: Anthropology 410h, 470f, Black American Studies 311a, b, Economics 322, History 362a, b, or Political Science 452.

## Aging Studies (Minor)

The minor is designed for the student with career interests in the field of gerontology and for students who wish to add an understanding of aging to their knowledge. The curriculum provides an interdisciplinary approach to understanding the aging process, basic issues related to aging and the aged, and an opportunity to acquire greater knowledge of gerontological theory and research. A component of the minor is a practicum that will assist the student in developing skills for working with and on behalf of older persons.

The basic objectives of the program are to prepare students for employment in positions of gerontology which do not require graduate education and to prepare students to go on to the graduate level to assume professional leadership in the delivery of services to older people. The minor is structured to complement courses or a major in disciplines such as sociology, social work, recreation, health education, rehabilitation, and human development.

The minor in aging studies consists of a minimum of 22 semester hours which includes ten of core courses, five of approved electives, and seven to ten of practicum. The practicum requires that the student work in a community-based aging agency. Placement may be full-time for one semester or half-time for two semesters. Terms of supervision will be consistent with the student's major area of study.

Students should check with their academic adviser as early as possible in order to plan an orderly progression of study.

<i>Core Courses</i> .....	10
Ten hours selected from Health Education 440, Psychology 305, Rehabilitation 446, 447; Social Work 463, 466; Sociology 465.	
<i>Approved Electives</i> .....	5
Five hours selected from Communication Disorders and Sciences 438; Health Education 402, Mortuary Science and Funeral Service 108; Psychology 489; Recreation 475i, School of Technical Careers 413.	
<i>Practicum</i> .....	7-10
The field practicum should be consistent with the student's major and career interest. If a practicum is offered in the student's major, the student should register for that practicum which will meet the requirements for the aging studies minor. If a practicum is not offered in the student's major, the student should consult the adviser for the aging studies minor about possible alternative courses to be substituted.	

Other courses which relate to studies of aging are offered and students should check with individual departments. Appropriate substitutions for the aging studies minor may be approved by the adviser for the minor.

## Agribusiness Economics (Department, Major, Courses)

Agribusiness economics is a dynamic and challenging field of study serving the needs of farmers as well as businesses in agriculture. Its scope encompasses domestic and foreign agriculture. The department provides a curriculum designed



to equip students with 1) professional skills in applied economics and management as related to agriculture, 2) analytical and planning abilities necessary for solving problems, and 3) knowledge and understanding to allow them to perform an effective professional role in a changing economic and social environment.

Agribusiness economics courses are offered in the following fields: farm management, agricultural prices, agribusiness management, agricultural marketing, agricultural finance, international agricultural development, land and resource use, and farm policy.

Students take additional courses in other departments in the School of Agriculture, in the College of Business and Administration, the Department of Economics, and other units of the University.

There are two specializations within the agribusiness economics major. The 40-hour option (agricultural) provides for a broad training in agriculture by requiring 40 hours of courses in the School of Agriculture. The 32-hour option (business-economics) requires the student to take more courses in business and economics and reduces the hours in the School of Agriculture to 32.

For a number of courses taught in the department, there will be an additional charge for field trips, laboratory manuals or supplies.

**Bachelor of Science Degree, School of Agriculture**

AGRIBUSINESS ECONOMICS MAJOR – 40-HOUR OPTION (AGRICULTURAL)

<i>General Education Requirements and Substitutes</i> .....	47
GE-A 106 and 115 or equivalent .....	6
GE-D 101, 118 <sup>1</sup> , 153 .....	8
Mathematics 116 to substitute for GE-D 107 .....	5
<i>Requirements for Major in Agribusiness Economics</i> .....	55
Courses in Agriculture .....	40
Agribusiness Economics 204 <sup>2</sup> , 350 or 360, 351, 362, 381-1, 450 or 461 .....	16
Other Agribusiness Economics .....	7
Animal Industries .....	3
Plant and Soil Sciences .....	3
Electives in Agriculture including Agribusiness Economics .....	11
Courses in Business, Economics, and Quantitative Methods .....	15
Economics 214, 215 .....	6
Quantitative Methods <sup>3</sup> .....	9
<i>Electives</i> .....	18
<i>Total</i> .....	120

AGRIBUSINESS ECONOMICS MAJOR – 32-HOUR OPTION (BUSINESS-ECONOMICS)

<i>General Education Requirements and Substitutes</i> .....	49-52
GE-A 106 and 115 or equivalent .....	6
GE-D 101, 118 <sup>1</sup> , 153 .....	8
Mathematics 116 and 117 or 139 and 140 to substitute for GE-D 107 .....	7-10
<i>Requirements for Major in Agribusiness Economics</i> .....	55
Courses in Agriculture .....	32
Agribusiness Economics 204 <sup>2</sup> , 350 or 360, 351, 362, 381-1, 450 or 461 .....	16
Other Agribusiness Economics .....	7
Animal Industries .....	3
Plant and Soil Sciences .....	3
Electives in Agriculture including Agribusiness Economics .....	3

Courses in Business, Economics, and Quantitative Methods . . . . .	23
Economics 214, 215 . . . . .	6
Quantitative Methods <sup>3</sup> . . . . .	9
Business and Economics . . . . .	8
<i>Electives</i> . . . . .	<u>13-16</u>
<i>Total</i> . . . . .	120

<sup>1</sup>Management 202 is highly recommended.

<sup>2</sup>Agribusiness Economics 204 substitutes for GE-B 211.

<sup>3</sup>Must include 3 hours of statistics and 3 hours of accounting.

## Minor

A minor in agribusiness economics is offered. A minor consists of 16 semester hours of credit. Normally 12 hours must be taken at Southern Illinois University. An adviser within the department must be consulted before selecting this field as a minor.

## Courses

**204-3 Introduction to Agricultural Economics.** Agriculture in local and national economy; distribution; size and organization of the farm business units; policies affecting agriculture.

**257-1 to 10 Work Experience.** Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

**258-1 to 30 Past Work Experience.** Credit for career related employment based on the evaluation of the documentation of this experience by the Department of Agribusiness Economics. No grade for past work experience. Prerequisite: consent of chairperson.

**302-2 Country Living Management and Information.** Managing a small acreage as an avocation. Types of decision problems and sources of information.

**340-3 Food and Agricultural Policy.** An economic analysis of the structure, problems, and alternative public policies of the food production industry. Emphasis on price, income, foreign trade, and development policies. Prerequisite: 204 or consent of instructor.

**350-3 Farm Management.** Efficient organization and management of a farming operation. Emphasis on crop and livestock selection, management of farm resources, farm budgets and records analysis, and farm leases. Student will incur field trip expenses not to exceed \$5. Prerequisite: 204 or one course in economics.

**351-3 Financial Management in Agriculture.** Analysis of the capital structure of agriculture and sources of capital. Credit analysis of agribusiness firms using financial statements, firm growth, capital budgeting, and tax considerations. Prerequisite: 204 or equivalent.

**359-1 to 6 Intern Program.** Supervised work experience program in either an agricultural agency of the government or agribusiness. Prerequisite: junior standing or consent of instructor. Mandatory Pass/Fail.

**360-3 Cooperatives and Agribusiness Management.** Problems and practices in agribusiness operations including forms of organization, alternative organization and structure impacts on decision making, tools of decision making, financial analysis and methods of improving the effectiveness of the marketing system. Prerequisite: 204 or equivalent.

**361-2 Distribution in Agribusiness.** The nature of agribusiness distribution, opportunities to improve the effectiveness of the distribution system through an understanding of the function involved. Prerequisite: 204 or equivalent.

**362-3 Marketing and Pricing Agricultural Products.** Institutional arrangements in marketing agricultural products. Market structure, marketing costs, and alternative methods of pricing agricultural products are also examined. Prerequisite: 204 or equivalent.

**363-3 Commodity Futures Market.** The mechanics of futures market trading, a description of institutions, technical and fundamental analysis, speculation, hedging, spreading, and market risk. Agricultural commodities, exchange rates, and financial instruments are considered.

**381-1 to 4 (1, 1, 1, 1) Agricultural Seminar.** Discussion of special topics and/or problems in the field of agribusiness economics. Prerequisite: junior standing and consent of department.

**388-1 to 16 (1 to 8 per semester) International Studies.** Course work undertaken as a part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: major department or program approval.

**390-1 to 4 Special Studies in Agribusiness Economics.** Assignments involving research and individual problems. Field trips. Prerequisite: consent of chairperson.

**391-1 to 4 Honors in Agribusiness Economics.** Completion of honors paper or comparable project under the supervision of one or more faculty members. Subject matter depends upon the needs and interests of the student. Prerequisite: junior, GPA 3.0 with a 3.25 in major; approval of staff member, department chairperson.



- 401-3 Agricultural Law.** Relations of common-law principles and statutory law to land tenure, farm tenancy, farm labor, farm management, taxation, and other problems involving agriculture. Prerequisite: junior standing or consent of instructor.
- 402-1 to 6 Problems in Agribusiness Economics.** Designed to improve the techniques of agribusiness economics workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. Prerequisite: consent of chairperson.
- 440-3 Land Resource Economics.** (Same as Economics 471.) The use of land as an economic variable in production of goods and services; land markets; public versus private land use conflicts; and land-use planning in an institutional setting. Prerequisite: 12 hours of agricultural economics or economics credit, or graduate status or consent of instructor.
- 444-3 Agricultural Development.** Analysis of the economic, social, political, cultural, and institutional factors related to economic growth and development in agricultural sector. Framework for evaluating outcome of alternative strategies in agricultural production, marketing, and government policies that affect output, income distribution, and resource use in agriculture and the related agroindustrial complex. Prerequisite: 204.
- 450-3 Advanced Farm Management.** Application of production economic principles and modern decision-making techniques to farm management problems. The importance of information, sources of agricultural risk and management of risk in farm planning will be integrated. Prerequisite: 350 or equivalent, and GE-D 107.
- 451-2 Farm Real Estate Appraisal.** Principles and practices of farm real estate appraisal. Application of capitalization, market, and cost approaches for estimating market value. Understanding of special valuation methods used for buildings, insurance, assessments, loans, and condemnation. Field trips not to exceed \$10. Prerequisite: 350 or consent of instructor.
- 453-3 Advanced Farm Planning Techniques.** Application of linear programming to farm planning including enterprise selection, resource allocation, and least cost ration formulation. Farm decision making under uncertainty and analysis of farm expansion alternatives. Prerequisite: 350 or consent of instructor.
- 460-3 Agricultural Prices.** Measurement and interpretation of factors affecting agricultural prices. Construction of index numbers, trend analysis, seasonal and cyclical price movements and the measurement of relationships between price and other variables. Prerequisite: 362 or equivalent.
- 461-3 Agriculture Business Management.** Function of top management in agribusiness, such as: determining objectives, developing sound and consistent policies for achieving objectives; organizing the administrative personnel to carry out the plans; guiding and maintaining the administrative organization. Prerequisite: 351 and 360 or equivalents.
- 462-3 Advanced Agricultural Marketing.** An examination of contemporary institutions and determining the marketing practices of grain, livestock, dairy, and horticultural commodity producers and processors. Emphasis is placed on formulating a successful marketing strategy. Prerequisite: 362.
- 500-6 (3, 3) Agribusiness Economics Research Methodology.**
- 551-3 Resource Allocation in the Agribusiness Firm.**
- 552-3 Problems and Policies of the Agricultural Sector.**
- 581-1 to 4 Seminar in Agribusiness Economics.**
- 588-1 to 8 International Graduate Studies.**
- 590-1 to 4 Readings.**
- 593-1 to 4 Individual Research.**
- 599-1 to 6 Thesis.**
- 601-1 to 12 per semester Continuing Research.**

## Agricultural Education (Major)

In this program a student will receive the technical and professional training needed to teach applied biological and agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially designed curricula.

### Bachelor of Science Degree, College of Education or School of Agriculture

AGRICULTURAL EDUCATION MAJOR – SECONDARY TEACHING CERTIFICATE

<i>General Education Requirements</i> . . . . .	45
GE-A 106, 115 . . . . .	6



GE-B 212 and 202 .....	6
GE-D 101, 107, 118, 153 .....	11
GE-E 201 and two hours of physical education activity courses .....	4
<i>Requirements for Major in Agricultural Education</i> .....	40
Agribusiness Economics .....	3
Agricultural mechanization courses .....	3
Agricultural Education and Mechanization 311a, b <sup>1</sup> , and one of the following: 364, 411, 414 .....	9
Animal Industries .....	3
Plant and Soil Science .....	3
Specialty in Agriculture and agriculture electives .....	19
<i>Professional Education Requirements</i> .....	25
See Teacher Education Program, page 83.	
<i>Electives</i> .....	10
<i>Total</i> .....	120

<sup>1</sup>Agricultural Education and Mechanization 412 may be substituted for 311b.

## Agricultural Education and Mechanization

(Department, Major, Courses)

The Agricultural Education and Mechanization major includes two specializations: agricultural information and agricultural mechanization.

*Agricultural Information Specialization.* This specialization is intended for those students who plan to be involved in agricultural education programs in extension, post-secondary educational institutions, and industry. Persons desiring to be certified for public school secondary teaching should follow the agricultural education major.

*Agricultural Mechanization Specialization.* Agricultural mechanization is the application of technology to agricultural problems in the areas of power and machinery, structures and environment, electrical power and processing, and surveying for soil and water management.

Qualified candidates for the Capstone Program are accepted in the department.

For a number of courses taught in the department, there will be additional charges for field trips, laboratory manuals, or supplies.

### Bachelor of Science Degree, School of Agriculture

AGRICULTURAL AND MECHANIZATION MAJOR – AGRICULTURAL INFORMATION  
SPECIALIZATION

<i>General Education Requirements</i> .....	45
GE-A 115 or substitute, GE-A 106 or chemistry equivalent required	
GE-B 108 or 202 required	
GE-D 101, 107, 153 required, 118 recommended	
<i>Requirements for Major in Agricultural Education and Mechanization</i> .....	43
Agribusiness Economics .....	6
Agricultural Education and Mechanization	
Agricultural education courses: 314 and any of the following: 364, 411, 414 .....	9
Agricultural mechanization courses .....	6
Animal Industries .....	6
Plant and Soil Science .....	6
Electives in Agriculture .....	10

<i>Electives</i> .....	32
<i>Total</i> .....	120

AGRICULTURAL EDUCATION AND MECHANIZATION MAJOR – AGRICULTURAL  
MECHANIZATION SPECIALIZATION

<i>General Education Requirements</i> .....	45
GE-A 115, 106 and Physics 203 a,b or equivalent.....	12
GE-D 101, 118 recommended, 153, Mathematics 108 .....	11
<i>Requirements for Major in Agricultural Education and Mechanization</i> .....	47
Agricultural Education and Mechanization courses selected from 171, 172, 173, 174, 371, 372, 373, 374, 384, 472, 473, 474, and 483 and totaling .....	18
Supporting science courses: Physics 253 a,b, Mathematics 109 or equivalent .....	5
Agribusiness Economics .....	3
Animal Industries .....	3
Plant and Soil Science and/or Forestry .....	6
Electives in Agriculture .....	12
<i>Electives</i> .....	28
<i>Total</i> .....	120

Minor

A minor in agricultural education and mechanization is offered. A total of 16 hours within the department is required. A counselor with the department must be consulted before selecting this field as a minor.

Courses

- 171-1 Land Measurements.** One module of a four module sequence in introductory agricultural mechanization. Basic survey concepts and practices for use in soil and water management. A student may take any or all modules.
- 172-1 Agricultural Power and Machinery.** One module of a four module sequence in introductory agricultural mechanization. Internal combustion engines; tractor power, forces and efficiency; tillage machinery, metering devices, harvesting machinery, capacities of field machinery. A student may take any or all modules.
- 173-1 Agricultural Electrification.** One module of a four module sequence in introductory agricultural mechanization. Fundamentals of electrical flow; measuring electrical energy; circuits; conductors and distribution systems; electric motors; electrical controls. A student may enroll in any or all modules.
- 174-1 Agricultural Structures and Environment.** One module of a four module sequence in introductory agricultural mechanization. Farm building plans; types of construction; building materials and terminology; quantities and costs; heat loss, insulation, solar energy. A student may enroll in any or all modules.
- 180-1 to 2 (1, 1) Introduction to Agricultural Communications Experience.** Study, observation and participation in (a) agricultural news activities, (b) graphic/photographic activities of an agricultural extension communication office. Prerequisite: consent of instructor.
- 257-1 to 10 Work Experience.** Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of chairperson. Mandatory Pass/Fail.
- 258-1 to 30 Past Work Experience.** Credit for career related employment based on the evaluation of the documentation of this experience by the Department of Agricultural Education and Mechanization. No grade for past work experience. Prerequisite: consent of chairperson.
- 274-2 Skills in Home Maintenance and Repair.** Common home related maintenance and repair activities. Units include safety and developing the home shop; construction skills related to masonry, concrete, plumbing and painting; basic electricity and practical home wiring; and lawn, garden and recreational equipment maintenance and operation.
- 311-6 (3, 3) Agricultural Education Programs.** Nature and scope of the different programs involved in teaching agricultural occupations and methods of developing them. There is a \$10 laboratory fee for each course.
- 314-3 Agricultural Information Programs.** Preparation for an agricultural information internship; an in-depth study into the nature, scope, integral parts, and methods of a total agricultural information program.
- 318-3 Introduction to Computers in Agriculture.** An introductory course about the use and role of computers in agriculture. The major thrust includes a basic understanding and application



of micro-computers in agriculture with special emphasis on how to save time, money, and increase efficiency in agriculture.

**359-1 to 6 Intern Program.** Supervised work experience in either an agricultural agency of the government or agribusiness. Prerequisite: junior standing or consent of instructor. Mandatory Pass/Fail.

**364-3 Leadership of Youth and Peer Groups.** (See Vocational Education Studies 364.)

**371-2 Surveying and Planning.** Surveying, mapping, land measurement, contouring, planning waterways and terraces and other water control structures used in the development and conservation of forests and agricultural land.

**372-3 Agricultural Production Machinery.** A course in selection capacities, application, performance, operation, maintenance, adjustments, and calibration of agricultural production machinery.

**373-3 Small Engines and Electricity in Agriculture.** A basic agricultural power course emphasizing principles, maintenance, and overhaul of small engines. The course also includes electrical circuit planning, practical wiring, a study of electric motors, and basic electrical controls. There is a \$10 additional charge for this course.

**374-2 Applied Graphics.** Fundamentals of interpreting graphic illustrations, sketching, drawing, and lettering in agriculture, forestry, and landscape design.

**380-1 to 2 (1, 1) Agricultural Communications Seminar.** Readings, discussions, and activities related to (a) current problems, issues, and practices in agricultural communication, (b) career opportunities, professional development, and ethical standards in agricultural communication. Prerequisite: junior and senior standing and consent of instructor.

**381-1 to 4 (1, 1, 1, 1) Agricultural Seminar.** Discussion of special topics and/or problems in the field of agricultural education and mechanization. Prerequisite: junior standing and consent of department.

**384-3 Agricultural Shop and Construction Processes.** Principles of shop organization and safety; tool and equipment utilization as related to hot and cold metals, woodworking, plumbing, and concrete construction. There is a \$15 additional charge for this course.

**388-1 to 16 (1 to 8 per semester) International Studies.** Course work undertaken as part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: major department or program approval.

**390-1 to 4 Special Studies in Agricultural Education and Mechanization.** Assignments involving research and individual problems. Field trips. Prerequisite: consent of chairperson.

**391-1 to 4 Honors in Agricultural Education and Mechanization.** Completion of honors paper and comparable project under the supervision of one or more faculty members. Subject matter depends upon the needs and interests of the student. Prerequisite: junior, GPA 3.0 with a 3.25 in major; approval of staff member, department chairperson.

**402-1 to 12 (1 to 6 per topic) Problems in Agricultural Education and Mechanization.** (a) Agriculture education, (b) agriculture mechanization. Designed to improve the techniques of agricultural education and mechanization workers through discussion, assignment, and special workshops on problems related to their field. Emphasis will be placed on new innovative and currently developed techniques for the field. A limit of six hours will be counted toward graduation in master's degree program. Prerequisite: consent of chairperson.

**411-3 Program Development in Agricultural Extension.** Principles and procedures in developing extension programs with emphasis on program determination and methods. Prerequisite: junior standing.

**412-3 Methods of Agriculture Mechanization.** Theory and use of educational materials and devices adaptable to the needs and interests of educators involved in agricultural mechanization laboratories. There is a \$15 laboratory fee for this course.

**414-3 Adult Education Procedures, Methods, and Techniques.** Determining adult education needs and interests of the community. Securing and organizing the information needed for adult education programs and planning teaching activities.

**415-3 Beginning Teacher Seminar.** The application in the professional field setting, of principles and philosophies of the education system. Includes application of principles of curricula construction, programming student and community needs. Prerequisite: consent of instructor.

**418-3 Micro Computing for Agricultural Education.** Design of word programs and formula programs used in agricultural education applications of the micro computer. Prerequisite: junior standing or consent of instructor.

**472-3 Agricultural Tractors and Engines.** Tractor performance and selection, principles of operation, maintenance analysis, and tune-up of multi-cylinder farm type internal combustion engines. There is a \$5 laboratory fee for this course.

**473-2 Advanced Agricultural Electricity.** Application of electricity to agricultural problems. An emphasis on principles of electrical distribution on the farm and/or the agribusiness operation. Planning the efficient usage of electricity. Prerequisite: 373 or equivalent.

**474-3 Advanced Agricultural Structures.** A study of design characteristics, construction, methods, and environmental control applicable to agricultural structures. Design construction and environment are considered from the standpoint of the function of the building of an agricultural enterprise. Prerequisite: 384 or equivalent.

**483-3 Agricultural Materials Handling, Processing, and Storage.** Arrangement of systems



for animal waste disposal, feed handling and processing, and storage of agricultural products. Prerequisite: 373 or 384 or 473 or 474.

**500-3 Agricultural Education and Mechanization Research Methodology.**

**525-3 Program Development in Agricultural Education.**

**526-3 Professional Development in Agricultural Education.**

**571-3 Current Problems and Research in Agricultural Power and Machinery.**

**581-1 to 8 (1 to 4 per topic) Seminar.**

**588-1 to 8 International Graduate Studies.**

**590-1 to 4 Readings.**

**593-1 to 4 Individual Research.**

**595-1 to 4 Agricultural Occupation Internship.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Agriculture (Courses)

### Courses

**110-3 Agriculture and Society.** An introductory and general inquiry about the role and characteristics of farm and off-farm agriculture in our non-agrarian society. To acquaint students with important aspects of the various fields of agriculture and agrarian relationships to our society.

**259-2 to 40 Technology in Agriculture.** For credit earned in technical or occupational proficiency above the high school level (by departmental evaluation).

**333-2 Agriculture and Forestry Environmental Problems.** An overview course directed at the environmental problems of food, fiber, and forest products, production and processing and their potential solutions. A team taught course within the School of Agriculture.

**388-1 to 16 (1 to 8 per semester) International Studies in Agriculture.** Course work undertaken as a part of an approved University residential study program abroad. May be taken for a maximum of eight semester hours per semester and may be repeated for a maximum of 16 semester hours. Prerequisite: School of Agriculture or department within the school approval.

**401-3 Fundamentals of Environmental Education.** (Same as Forestry 401 and Recreation 401.) A survey course designed to help education majors develop an understanding of environmental problems and an awareness of how these types of problems can be handled both inside and outside the classroom. Prerequisite: ten hours of biological science, or ten hours of recreation and/or education, or consent of instructor.

**423-3 Environmental Interpretation.** (Same as Forestry 423 and Recreation 423.) Principles and techniques of natural and cultural interpretation. Two hours lecture, three hours laboratory. Approximately \$10 cost for field trips. Prerequisite: ten hours biological science or ten hours of recreation.

**450-2 Farming Systems Research and Development.** An introduction to farming systems, which is an interdisciplinary approach to agricultural research and development emphasizing small farms. The whole farm is viewed as a system of interdependent components controlled by the farm household. Focuses on analyzing interactions of these components as well as the physical, biological, and socioeconomic factors not controlled by the household. Techniques of analysis are applicable domestically and internationally.

**481-1 International Agricultural Seminar.** Discussion of special topics relating to worldwide agricultural development. Prerequisite: consent of instructor.

## Agriculture, General (Major)

General agriculture is an excellent choice of agricultural major for the students who wish a flexible program which permits them ample selection of courses to satisfy their interests and abilities, as well as to attain their educational and professional goals. The minimum requirements give students a broad background in agriculture; the unusual freedom in selecting courses to fulfill these minimum requirements as well as the large number of free electives permit the students to individualize their educational experience.

*Production Agriculture Specialization.* Students gain basic preparation for many of the agricultural careers: general farming, agricultural services, agricultural extension, agricultural communications, agricultural business, agricultural industry, and agricultural production. For students whose interest is production agriculture, typical courses which are used to fulfill the minimum course

distribution among the three departments in which work is required are Agribusiness Economics 204, 350, Agricultural Education and Mechanization 372, Animal Industries 121, 122, 215, 315, Plant and Soil Science 200, 240, and 300a.

*Environmental Studies Specialization.* In addition to serving as preparation for entry into the traditional agricultural and agricultural related occupations, students now find that the general agriculture major, with the study of soils, crops, forests, animals and their interrelatedness, is an excellent and practical way to study environmental and ecological problems. Choosing their agriculture and elective courses with this emphasis in mind permits students to specialize in environmental studies within the major, general agriculture. For this specialization, the general agriculture requirements remain the same; however, to fulfill the requirements, students must complete as agriculture or elective courses, thirty hours from among Agriculture 333, 401, 423; Agribusiness Economics 440; Animal Industries 455; Forestry 301, 331, 409, 430, 453; Plant and Soil Science 328A, 420, 446, 468; Economics 333; Civil Engineering 314; Political Science 325. Substitute courses may be approved through the office of the dean of the School of Agriculture.

### **Bachelor of Science Degree, School of Agriculture**

<i>General Education Requirements or Approved Substitutes</i> .....	48 <sup>1</sup>
Including GE-A 118, Botany 200, Chemistry 140A; GE-B 211 or Agribusiness Economics 204; GE-D 107 and GE-D 153.	
<i>Requirements for Major in General Agriculture</i> .....	44
Chemistry 140b .....	4
A minimum of eight semester hours in structured courses in each of three departments in the School of Agriculture <sup>2</sup> .....	24
Agricultural and Forestry Electives <sup>2</sup> .....	16
<i>Electives</i> .....	28
<i>Total</i> .....	120

<sup>1</sup>For environmental studies specialization, GE-B/GE-C 221 is required.

<sup>2</sup>School of Agriculture courses must include at least 15 hours of 300 and 400 level courses, with no less than 9 hours on the 400 level.

### **Minor**

For students whose major is outside the School of Agriculture, a minor in general agriculture consists of a minimum of 16 semester hours of structured course work in agriculture with no less than 3 semester hours in each of three departments of the school.

The minor in general agriculture is not awarded to students who have a major in the School of Agriculture.

## **Allied Health Careers Specialties (Program, Specialized Major)**

Individual courses of study leading to specialties in allied health career fields are offered by the School of Technical Careers through programs which combine clinical experience with appropriate courses from throughout the University, from community colleges, and from other educational institutions.

Each student works with an adviser to design a core curriculum and clinical experience in an appropriate clinical setting. The student may study in such fields as laboratory/skills, radiologic technology, and respiratory therapy.



Because programs are individually designed, prospective students must consult with the faculty about course and program requirements. Persons interested in the allied health careers specialties program should contact the director of the Division of Allied Health and Public Services.

The program is intended to accommodate the non-traditional student. Enrollment is limited by the availability of clinical facilities and supervising faculty; prospective students are urged to begin the admission and advisement process well in advance of the semester in which they wish to begin their studies.

Additional expenses will be incurred to cover the cost of uniforms, liability insurance, travel, laboratory fees, etc.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Allied Health Careers Specialties

GE-D 101, 107, and 152. ....	9
School of Technical Careers 107a. ....	2
Allied Health Careers Specialties 141. ....	4
Electives/support courses which will change according to areas of concentration. ....	14
Clinical phases will consist of a minimum of. ....	36
The clinical phase of the curriculum requires the selection of two allied health careers specialty areas.	
Total. ....	65

Courses

**101-1 to 4 Introduction to the Clinical Laboratory Technology.** Introduces the student to the field of medical technology and the basic concepts of the clinical laboratory. By utilizing principles from the sciences and applying to a clinical situation, the student will develop skills, safety awareness, and interpersonal relationships. Prerequisite: consent of major adviser.

**102-4 Introduction to Radiologic Technology and Radiographic Technique.** Designed to introduce the student to the medical radiography profession. Students will begin their study of medical terminology, professional behavior, ethics, theory of radiographic exposure, and radiation protection. Prerequisite: admission to program and consent of program adviser.

**104-4 Introduction to Medical Assisting.** Introduction to the roles and functions of the medical assistant. Emphasis is placed on personal and community health, medical law and ethics.

**105-2 Medical Terminology.** Introduction to the study of medical language with a working knowledge of the most common word roots, prefixes, suffixes in medical terminology. Emphasis placed on spelling, pronunciation, use of the medical dictionary, vocabulary building, common abbreviations, and charting terms.

**112-3 Anatomy and Positioning I.** Designed to provide the student radiographer with didactic instruction and laboratory experience which will lead to the development of clinical competencies. It will serve as a foundation for the development of advanced clinical skills as well. The competencies developed are chest, abdomen, upper and lower extremities. Prerequisite: admission to program and consent of program adviser. Laboratory fee: \$50.

**114-4 Medical Assistant Clinical Procedures I.** To familiarize the medical assistant student with preparing the patient for examination in the physician's office; taking temperature, pulse, respiration, blood pressure, assisting the physician; care and preparation of sterile equipment, methods of sterilization; knowledge and care of instruments and ordering supplies. Prerequisite: 104.

**124-2 Disease Conditions.** Introduction to the study of diseases and disorders of the various body systems. The disease processes as they relate to bodily functions, their signs, symptoms, and treatment will be covered within the scope of medical assisting. Prerequisite: 105.

**125-1 to 4 Survey of Allied Health Related Sciences.** Emphasizes the concept of health and the basic needs of people, both in a state of health and as altered by illness. This includes the principles of the physical, biological and behavioral sciences and the knowledge basic to the proper understanding of various allied health procedures. Prerequisite: consent of the program adviser.

**132-3 Anatomy and Positioning II.** A continuation of 112 designed to further develop clinical skills and competencies through continued didactic and laboratory experience. Positioning competencies developed in this course include radiography of the pelvic girdle, spine, and digestive system. Eight weeks. Prerequisite: 112 and consent of program adviser.



**141-4 Introduction to Physiology and Human Anatomy.** The student will survey the functions and structures of the nine basic body systems: circulatory, digestive, endocrine, excretory, muscular, nervous, skeletal, reproductive, and respiratory.

**151-1 to 10 Clinical Laboratory Techniques.** Specific tasks in the areas of urinalysis, coagulation, hematology, and serology are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods for data gathering and problem solving are developed. Prerequisite: consent of program adviser.

**152-1 to 10 Clinical Radiologic Techniques.** Basic radiographic anatomy and positioning of the extremities, chest and abdomen, techniques and practice in specialized radiographic procedures will be taught. Emphasis is placed on patient handling, radiation safety, darkroom procedures, and application of electrical and radiation physics. Clinical skills, clinical knowledge, and clinical information obtained through the performance of tasks are validated and related to their function in the clinical setting. Prerequisite: consent of program adviser.

**201-1 to 10 Clinical Laboratory Techniques.** Specific tasks in the areas of blood banking, clinical bacteriology, and clinical chemistry are taught. Emphasis is on the development of background information, clinical knowledge, and clinical skills. Clinical information obtained through the performance of tasks is evaluated and related to its function in the clinical setting. Methods for data gathering and problem solving are developed. Prerequisite: consent of program adviser.

**202-3 Radiographic Physics.** This course will concentrate on general theories of physics as they relate to matter, mechanics, and electricity. It also involves the study of the nature and production of radiation and understanding of the complexity of radiographic equipment and circuitry. Prerequisite: 102 and 112.

**203-5 Principles of Respiratory Therapy.** Introduction to the state of the art and fundamental principles and devices used in respiratory care practices. Significance is given to indications and contraindications for therapeutic modalities, appropriate equipment selection, airway management, and rehabilitative practices. Five hours lecture per week. Prerequisite: consent of instructor.

**204-3 Medical Assistant Clinical Sciences: Radiology and Physical Therapy.** Aide-level competencies in radiologic technology and physical therapy will be achieved. Emphasis placed on the use of these skills within a physician's office. Prerequisite: 105.

**209-4 Water Analysis I.** Overview of major problems related to the waste and drinking water. Introduction to the terminology and basic concepts. Student will be taught the role and importance of sampling in obtaining water quality data. In addition to sampling techniques, the student will learn to evaluate sampling data. Two hours lecture; four hours laboratory. Prerequisite: consent of instructor.

**212-2 Special Procedures.** Includes the study of contrast producing agents which are used to visualize specific parts of the body. Radiographic technique employed in this type of imaging is highly specialized and will be studied in depth. Prerequisite: 222, 372a and consent of program adviser.

**213-1 Respiratory Therapy Exercises.** Concepts and theories are applied in a laboratory setting to enhance a working knowledge with respiratory therapy equipment, physical principles, and pulmonary therapeutic techniques. Two laboratory hours per week. A \$25 laboratory fee is required. Prerequisite: concurrent enrollment in 203.

**214-4 Medical Assistant Clinical Procedures II.** To familiarize the medical assistant with the metric system, basic pharmacology, and preparation of medicine; proper techniques for drug administration, oral, parenteral, and topical; observing and doing EKG procedures; emergency medical care and first-aid and cardiopulmonary resuscitation. Prerequisite: 114.

**219-5 Water Analysis II.** Student will be taught to analyze all the basic water parameters. Student will develop skill in performing these parameter tests on a variety of sample types, including natural, wastewater, and sludges. Three hours lecture; five hours laboratory.

**222-10 Radiography Clinic I.** The student is assigned to a selected clinical education center for the entire semester. During this semester, the student radiographer is expected to practice and perfect the professional skills developed the previous semester on campus. The student is supervised by a qualified radiographer and directed in specific experiences designed to meet the objectives for the semester. Prerequisite: 102, 112, 132, 202.

**223-2 Patient Care Techniques.** Basic principles and essential skills necessary to perform patient care safely and effectively. Skills include surgical asepsis, terminology, communication, patient assessment and positioning, medical ethics, and behavioral problems unique to patients with respiratory illnesses. Two lecture hours per week. Prerequisite: consent of program adviser.

**224-6 (2, 4) Medical Assisting Internship.** Medical Assisting experience in both front-office and back-office skills will be obtained by placement in a local physician's office under close supervision. (a) Administrative/clerical practice will be gained. (b) Clinical experience as well as those advanced administrative procedures not completed in (a) will be covered. To be taken in conjunction with 234. Prerequisite: 214.

**229-3 Solid Waste Management.** An introductory field course in solid waste management. Students will be introduced to the day-to-day operations of a sanitary landfill such as what the landfill operator needs to know to perform the duties and what the manager must do to insure proper environmental compliance. Also covered will be aspects of solid waste management from collection to regulations, as well as resource recovery options.

**232-4 Selected Systems Radiography.** Designed to instruct the student in the anatomy and



positioning of the skull, digestive, excretory, biliary, and human reproductive systems. Routine projections common to most health facilities will be described, demonstrated, and then practiced on a phantom in the energized lab. A \$25 laboratory fee is required. Prerequisite: 222, 372a, and consent of program adviser.

**234-3 (1, 2) Medical Assisting Seminar.** Students will review patient care, office procedures, medical forms, and all other aspects of the administrative/clinical duties performed in their internship. Specific needs and problems encountered in the individual offices will be discussed. 224a and 234a must be taken concurrently. 224b and 234b must be taken concurrently. Prerequisite: 214.

**243-3 Basic Cardiopulmonary Physiology.** Physiological functions are presented which include acid-based relationships, gas perfusion, controlling mechanisms of ventilation, ventilation/perfusion relationships, hemodynamics of the cardiopulmonary and renal systems, and blood gas analysis. Three lecture hours per week. Prerequisite: consent of program adviser.

**253-1 Clinical Practice I.** Orientation to the clinical setting with special emphasis on basic procedures and the role of the respiratory therapy department as part of the health care system. One eight-hour session per week. Prerequisite: 203.

**263-3 Principles of Mechanical Ventilation.** Introduces mechanical function of equipment used in continuous and intermittent ventilation of adult, pediatric, and neonatal patients. Indications, contraindications, and hazards of continuous ventilation with significance given to ventilatory management and monitoring techniques. Three lecture hours per week. Prerequisite: 203 and concurrent enrollment in 273.

**265-3 Epidemiology of AIDS.** Designed to provide the student with a study of the occurrence, distribution, and types of related diseases pertaining to AIDS. Topics will include, but not be limited to, reassessing the issues from 1979 to 1986, current issues and trends, hospital wide management approach, patient confidentiality, legal aspects, public relations, precaution techniques and preventive education, and assessing the future. Designed for continuing education of health care personnel.

**273-1 Mechanical Ventilation Laboratory.** Emphasis on functional mechanical ventilation characteristics, the assembly of patient circuits, ventilator monitoring, and weaning techniques. Also included is the analysis of arterial blood gas parameters and assessment of the ventilator patient. Two laboratory hours per week. A \$25 laboratory fee is required. Prerequisite: concurrent enrollment in 263.

**283-3 Survey of Pulmonary Diseases.** The study of the nature and cause of pulmonary diseases which involve changes in structure and function. The etiology, pathogenesis, clinical manifestations, laboratory data, and treatment for major chronic and acute pulmonary disease entities will be presented. Three lecture hours per week. Prerequisite: admission to program or consent of program supervisor.

**293-2 Clinical Practice II.** Supervised clinical experience which emphasizes fundamental respiratory therapy procedures and introduces the student to critical care management. Sixteen clinical hours per week. Prerequisite: 253.

**300-1 to 3 Seminar in Allied Health.** A topical seminar conducted by staff members or distinguished guest lecturers on pertinent areas of allied health. Prerequisite: consent of instructor and department.

**312-3 Radiographic Pathology.** Deals with the etiology and processes of trauma and disease. Emphasis will be placed on radiographic pathology of the body systems and the manifestation of this pathology. Prerequisite: 320, 372b, and consent of program adviser.

**313-3 Respiratory Pharmacology.** The study of drugs; their origin, nature, properties, and effects on living tissues. Significance is given to drugs which reflect changes on the cardiopulmonary and renal systems. Three lecture hours per week. Prerequisite: 243.

**322-4 Cross-Sectional Anatomy and Radiographic Computerization.** Includes the study of anatomical structures from the transverse section perspective as compared to the two dimensional perspective. Also included is an introduction to the use of computers in the radiology department. Emphasis will be placed on computer programming for imaging and administrative purposes. Prerequisite: 302, 372b, and consent of program adviser.

**323-3 Respiratory Pathophysiology.** Discussion of pulmonary complications with obstructive and restrictive disease components and their relationships with pulmonary function studies and blood gas analysis. Emphasis is given to patients with complications directly or indirectly affecting respiration. Three lecture hours per week. Prerequisite: 283.

**332-10 Radiography Clinic II.** The student returns to the clinical education center for this semester. The student radiographer is expected to continue to practice previously developed professional skills and to assume performance of additional examinations studied during the previous semester. This semester of clinical study includes proficiency testing which, when completed, will allow the student to assume full responsibility for the examination in the future.

**342-2 Radiation Biology, Therapy, and Nuclear Medicine.** Designed to instruct the student radiographer in the principles and terminology of radiobiology. Emphasis will be placed on how these principles relate to radiation protection. Also included are brief introductions to nuclear medicine and therapy. Prerequisite: 302, 372b, and consent of program adviser.

**343-2 Neonatal/Pediatric Respiratory Care.** Respiratory care of the neonate and pediatric patient is presented with special emphasis on physiology, pulmonary complications, and related general and intensive care procedures. Also included is neonatal transportation and assessment of the sick newborn and child. Two lecture hours per week. Prerequisite: 243.



**352-4 Special Imaging Modalities.** This course provides the student with the knowledge and understanding relevant to the function, operation, and application of the various techniques used in image production.

**353-8 Clinical Internship.** Integration of clinical practice and knowledge for the advanced student. Students receive clinical experience in neonatal and adult intensive care units with an emphasis in ventilatory management. Students should plan to attend a major medical institution off campus for sixteen weeks in the fall. Prerequisite: 293.

**362-4 Radiography Clinic III.** Last clinical course of the program. Students are expected to demonstrate knowledge and competency of radiographic examinations listed in categories one through nine. Image evaluations will be performed on a weekly basis by the clinical instructor as well as behavioral/attitudinal ratings. Prerequisite: 312, 322, 342, 352.

**363-3 Pulmonary Evaluation and Monitoring.** Emphasis on diagnostic and monitoring principles used in determining clinical evaluation of patients. Cardiopulmonary assessment is presented utilizing electrocardiography, chest roentgenology, laboratory tests, and physiologic shunt and deadspace calculations. Three lecture hours per week. Prerequisite: 283.

**372-6 (2,2,2) Radiographic Film Critique.** (a) Concurrent with clinical study, the student will participate in the technical review of the films taken fulfilling introductory objectives set for this course. Prerequisite: 102, 112, 132, 202. (b) The student will continue to develop abilities to review an examination from a technical standpoint utilizing more advanced knowledge to fulfill course objectives. Prerequisite: 212, 232, (c) Final competencies in the technical production and review of the finished radiograph are determined and evaluated. Also included is a review of the knowledge learned in the program. Prerequisite: 312, 322, 342, 352 or consent of program adviser.

**373-4 (2, 2) Clinical Practice III.** (a) Supervised clinical experience emphasizing diagnostic and monitoring procedures used in evaluating patients with cardiopulmonary complications. (b) Research seminar: a faculty supervised research project identifying rural clinical problems relevant to respiratory therapy is completed by the student. Prerequisite: 353.

Animal Industries (Department, Major, Courses)

Instruction, research, demonstration, and consultation are provided in dairy, horse, livestock and poultry production, meats, pets, and animal hygiene. Courses are offered in all phases of animal production and management.

The student has opportunity to select courses in other areas of agriculture or related fields, such as business, biology, or physical sciences. This selection allows students to include in their studies the agronomic, agricultural economic, and agricultural engineering phases of agriculture or business as related to animal production.

In addition to the production, and the science and pre-veterinary medicine options, the department also offers a two-year and a three-year curriculum in pre-veterinary medicine. These allow qualified students to transfer to accredited colleges of veterinary medicine prior to receiving the Bachelor of Science degree in animal industries.

A major in animal industries may not take a departmental courses on an elective Pass/Fail basis if the credits are to be applied toward the required thirty hours in animal industries courses. Majors may take departmental courses beyond the thirty hour requirement on an elective Pass/Fail basis.

There may be extra expenses for field trips, manuals, or supplies in some courses.

Bachelor of Science Degree, School of Agriculture

ANIMAL INDUSTRIES MAJOR-PRODUCTION OPTION

<i>General Education and Substitutes</i> .....	50-51
Substitute Chemistry 140a, b or equivalent for GE-A 106 .....	8
GE-A 118 or substitute Biology 306, 308, 309 or	
Botany 200 for GE-A 115 .....	3-4
GE-D 153 required .....	3
<i>Requirements for Major in Animal Industries</i> .....	44
Animal Industries 121, 122, 123, 210 or 311a, 215, 315,	
331, 332, 381 plus one course from 420, 430, 465,	



480, 485, or a course in equine studies approved by the department . . . . .	23-25
Animal industries electives including one additional 400-level course . . . . .	5-7
Agricultural electives, excluding animal industries courses . . . . .	8
Curriculum, Instruction, and Media 199 . . . . .	1
Microbiology 301 . . . . .	4
Physiology 208 . . . . .	1
Electives . . . . .	25-26
Total . . . . .	120

ANIMAL INDUSTRIES MAJOR—SCIENCE AND PRE-VETERINARY OPTION

General Education and Substitutes . . . . .	63
Substitute Chemistry 222a, b or equivalent for GE-A 106 . . . . .	8
Substitute Physics 203a, b and 253a, b for GE-A 101 . . . . .	8
Substitute Mathematics 108 and 109 for GE-D 107 . . . . .	6
Biology . . . . .	8
GE-D 153 required . . . . .	3
Requirements for Major in Animal Industries . . . . .	55-56
Chemistry 344, 345, 346, and 450 . . . . .	11-12
Microbiology 301 . . . . .	4
Animal Industries 121, 122, 123, 210 or 311a, 215, 315, 331, 332, 381 plus one course from 420, 430, 465, 480, 485, or a course in equine studies approved by the department . . . . .	23-25
Animal industries including one additional 400-level course . . . . .	5-7
Agriculture electives excluding animal industries courses . . . . .	8
Physiology 208 . . . . .	1
Curriculum, Instruction, and Media 199 . . . . .	1
Electives . . . . .	1-2
Total . . . . .	120

Minor in Animal Industries

The minor in animal industries requires 16 semester hours, of which at least 12 must be earned at Southern Illinois University. An adviser within the department must be consulted before selecting this field as a minor.

Minor in Equine Studies

The minor in equine studies requires 16 semester hours, of which at least 12 must be earned at Southern Illinois University. Courses required are 219, 220, 315, 331 or Physiology 210, a course in equine studies approved by the department, with additional hours to reach the 16 total selected from 419, 431, or other courses in equine studies approved by the department.

Courses

- 121-3 Science of Animals that Serve Mankind.** A general overview of dairy, meat animals (swine, beef, sheep), poultry, and horse industries with emphasis on how meat, milk, and poultry products are produced and distributed. The general application of genetic, physiologic, and nutrition principles for the improvement of animal production to further serve people. Prerequisite: concurrent enrollment in 122.
- 122-1 Production and Processing Practices of the Animal Industry.** Livestock facilities, demonstration of management practices of animals for human use and the processing of animal products. Can be taken without concurrent enrollment in 121.
- 123-1 Practicum in Animal Production.** A set of practical experiences at each livestock center and a proficiency examination. Required of all majors in animal industries before graduation. Mandatory Pass/Fail.

- 201-3 Care and Management of Pets.** Principles and practices of proper selection, feeding, and care of companion animals. Emphasis is placed on the dog and cat but other species are considered. Nutrition, health care, training, and reproduction are discussed.
- 210-3 Meat, Poultry and Milk Products as Related to the Consumer.** Processing and distribution including inspection, grading, processing methods and merchandising as well as selection and preparation including pricing, storage or preservation, cooking, serving, and the contribution to a well-balanced diet of meat, poultry, and milk products. Field trip.
- 215-2 Introduction to Nutrition.** (Same as Food and Nutrition 215.) An up-to-date study of basic principles of animal nutrition including classification of nutrients (physical and chemical properties) and their uses in order to provide the student a working knowledge of livestock nutrition in today's animal environment.
- 219-2 Introductory Horse Management—Lecture.** Designed for beginning science student or non-science majors with an interest in horses. Class provides non-technical information on topics related to horse selection and care.
- 220-2 Introductory Horse Management—Laboratory.** A practical lab addition to 219 providing individual instruction in horse care and handling for students with a limited past exposure to horses. Provides an opportunity for hands-on experience in the fundamentals of horse handling such as grooming and hygiene, exercising, and health care. Advancement depends wholly upon the individual's experience, confidence, and motivation.
- 257-1 to 10 Work Experience.** Credit given for on-campus work experience related to the student's major area of specialization as developed through the department and the Office of Student Work and Financial Assistance. Only 10 hours of credit may be taken in 257, or in any combination with 258. Prerequisite: consent of chairperson. Mandatory Pass/Fail.
- 258-1 to 10 Prior Work Experience.** Credit given for work experience related to the student's major area of specialization prior to University entrance. Only 10 hours of credit may be taken in 258, or in any combination with 257. No grade for prior work experience. Prerequisite: consent of chairperson.
- 311-4 (2, 2) Breeds, Classes, Grades, and Selection of Farm Animals and Poultry.** (a) Discussion of breeds and classes of livestock, dairy and poultry; grading and selection of breeding and market animals and their carcasses of products. (b) Competitive judging and selection of livestock, dairy, or poultry. Field trips required. Participation on SIUC judging team is not a required part of this course. Must be taken in a,b sequence. Prerequisite: 121 recommended.
- 315-3 Feeds and Feeding.** Principles of applied animal nutrition. Ration formulation to meet specific nutrient needs of livestock. Feedstuff evaluation, including cost will be discussed. Prerequisite: GE-D 107.
- 331-4 Physiology, Growth, and Development of Farm Animals.** Physiology is presented using the organ system approach. Growth and development of meat animals with emphasis on bone, fat, and muscle tissue, and the factors which influence their relative rate of formation.
- 332-3 Animal Breeding and Genetics.** The application of basic principles of genetics and breeding systems to the improvement of farm animals and poultry. Prerequisite: 121 or biology.
- 337-3 Animal Hygiene.** Principles of prevention and control of infectious, nutritional, and parasitic disease of farm animals. Prerequisite: a course in chemistry.
- 359-2 to 6 (2 to 3, 2 to 3) Intern Program.** Work experience program in animal production units and agricultural agencies of the government or agribusiness. Prerequisite: junior standing and consent of chairperson. Mandatory Pass/Fail.
- 380-1 to 6 Field Studies in Foreign and Domestic Animal Agriculture.** A travel course to observe and study the operation and management of farms, ranches, and feedlots as well as agribusiness firms supporting animal production such as food processors, feed manufacturers, and housing or equipment companies in either the United States or foreign countries. A written report is required. The travel fee charged to the student will depend on the nature and the length of the course.
- 381-1 Animal Science Seminar.** Discussion of problems and recent development in animal science. Prerequisite: junior-senior standing.
- 390-1 to 4 Special Studies Animal Industries.** Assignments involving research and individual problems. Prerequisite: juniors and seniors only and consent of chairperson. Mandatory Pass/Fail.
- 409-4 Equine Science.** Designed for students interested in the more scientific aspects of equine physiology and management. The class will take a more advanced look at anatomy and physiology of the systems of the equine and consider how they relate to selection, use, and management. Lecture and laboratory. Prerequisite: 219, 220, 331 or Physiology 210, or equivalent.
- 410-3 Meat Science.** Chemical, physical, and nutritional properties of meat and meat products. Topics covered include muscle function, tissue growth and development, aspects of post mortem change including rigor mortis, meat microbiology, methods of analysis, and quality control. Prerequisite: 210, Chemistry 140 or equivalent, and a course in physiology.
- 414-2 Animal Feed Quality Control.** Laboratory procedures for nutrient determinations used in animal feed quality control. Prerequisite: Chemistry 140 or equivalent.
- 415-3 Monogastric Nutrition.** Advanced principles and practices involved in meeting nutrient requirements of monogastric animals. Prerequisite: 215 and 315.
- 416-3 Ruminant Nutrition.** Practical knowledge gained of problems associated with digestion,



absorption, and metabolism of nutrients as related to domestic ruminants, horses, and other pseudoruminants. Prerequisite: 215 and 315.

**419-3 Stable Management and Horsemanship.** Laboratory experience in routines of horse care, training, and management. Field trips. Additional costs \$5. Prerequisite: 319.

**420-4 Commercial Poultry Production.** Principles and practices of management of broilers, layers, and turkeys as adapted to commercial operations. Field trip. Offered fall semester of even numbered years. Prerequisite: 315 or consent of instructor.

**421-2 International Animal Production.** A study of world animal production practices with emphasis on the developing countries. Adaptability of animals to environmental extremes and management practices employed to improve productivity. Prerequisite: junior standing plus 121 or one year of biological science.

**430-4 Dairy Cattle Management.** Application of the principles of breeding, physiology, and economics to management of a profitable dairy herd. Breeds of dairy cattle, housing, milking practices, and quality milk production. Field trip. Students enrolled will incur field trip expenses of approximately \$25. Prerequisite: 315, 332.

**431-4 Reproductive Physiology of Domestic Animals.** Comparative anatomy and physiology of the male and female reproductive system of domestic animals; hormones; reproductive cycles; mating behavior; gestation and parturition; sperm physiology; collection and processing of semen; artificial insemination, pregnancy tests; diseases. Prerequisite: 121 or a course in physiology.

**432-2 Quantitative Inheritance of Farm Animals.** A review of the genetic principles underlying changes in animal breeding population; interpretations of gene frequency, heritability, and genetic correlations; application of selection and breeding systems in farm animals. Prerequisite: 332.

**434-2 Physiology of Lactation.** Anatomy and physiology of milk secretion; endocrine control; milk precursors and synthesis; milk composition; physiology and mechanics of milking, mastitis. Offered only fall semester of odd numbered years. Prerequisite: course in physiology.

**455-2 Animal Waste Management.** Acquaints the student with the scope and problems involved with animal waste management, current regulations and laws on environmental protection. Principles covering waste management technology and current livestock waste management systems are presented. Field trips will be scheduled. Prerequisite: junior standing.

**465-4 Swine Production.** Swine production systems and management techniques including breeding and selection, reproduction, nutrition, herd health and disease prevention, housing and waste management, marketing, production costs, and enterprise analysis. Field trip. Prerequisite: 315 and 332 or consent of instructor.

**480-3 Sheep Production.** Breeding, feeding, and management of sheep. Field trip. Prerequisite: 315.

**485-4 Beef Production.** Beef cattle production systems and management, breeding and selection, reproduction, nutrition, and herd health with emphasis on the most economical and efficient systems. Field trip. Students enrolled will incur field trip expenses of approximately \$5. Prerequisite: 315 and 332 or consent of instructor.

**500-3 Research Methods in Agricultural Science.**

**502-2 Surgical Research Techniques in Farm Animals.**

**506-3 Instrumentation Methods in Agricultural Science.**

**515-3 Energy and Protein Utilization.**

**516-3 Minerals and Vitamins in Animal Nutrition.**

**531-2 Topics in Theriogenology.**

**581-1 to 2 (1, 1) Seminar.**

**588-1 to 8 International Graduate Studies.**

**590-1 to 3 Readings in Animal Industries.**

**593-1 to 3 Individual Research.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Anthropology (Department, Major, Courses)

Anthropology is the study of humans and their cultures in terms of universal features, variability, and development through time. The major subdivisions are socio-cultural anthropology, linguistics, archaeology, and physical anthropology. The student is expected to gain a broad background in all subfields, after which the options of further general study or specialization are available. Students are encouraged to supplement their anthropological studies with work in other social sciences, and where appropriate in biology, earth sciences, humanities, mathematics, or other areas.



Most professional anthropologists find employment as teachers and researchers in colleges and universities. However, a major in anthropology provides the students with a unique liberal arts background bridging the humanities, social, earth, and biological sciences, which leads to many other professional opportunities outside of teaching and research.

An anthropology major is required to take Anthropology 300A, B, C, D, and one each of the 410 and 470 course series. No more than six hours of Anthropology 460 and no more than six hours of 200-level course work may be applied to the major. Those students interested in advanced degrees will be advised to take Anthropology 400A, B, C, D (total 12 hours) with the remainder of the hours as electives. It should be noted that graduate departments often require foreign language and mathematical background beyond that required by the undergraduate program. Those students not interested in advanced study will be advised on an individual basis reflecting their own particular interests and aspirations.

Students with exceptional scholarly promise may be invited into the departmental honors program, which includes an honors seminar and the writing of an honors thesis under the direction of a departmental faculty member.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See page 94)</i> .....	(4) + 8-14
<i>Requirements for Major in Anthropology</i> .....	32
Anthropology 300A, 300B, 300C, and 300D required, and an additional nine hours of 400-level course work in anthropology.	
<i>Electives</i> .....	29-35
<i>Total</i> .....	120

**Minor**

A minor in anthropology consists of at least 15 hours including at least two of the four courses: 300A, 300B, 300C, 300D, and a minimum of three of the remaining nine hours at the 400 level.

A minor in anthropology for students interested in museum studies may be earned by taking a designated series of museum-oriented courses offered by the Departments of Anthropology, Geology, History, and the School of Art. Required courses for the minor are drawn from the following: Anthropology 450a,b; Art 207, 447; Geology 445; and History 497, 498.

**Courses**

**201-3 Archaeology of Illinois.** A survey of prehistoric cultural development, its causes and consequences, as seen through the archaeology of Native American cultural development in the Illinois region, from the earliest foragers to European contact.

**203-3 World Archaeology: Humans Before History.** A worldwide survey of the evolution of human behavior from earliest times to the beginnings of civilization.

**221-3 The Anthropology of Sexual Behavior.** Introduces the student to general primate ethology where sexual behaviors are seen to be a function of band needs. Patterns of sexuality are then examined on a cross-cultural basis where attitudinal and cultural distinctions between men and women are related to socio-cultural needs and pressures. The course will conclude with an examination of modern western sexism.

**225-3 Separate Realities.** The focus of this course is on an anthropological approach to other realities. The works of Castaneda and Bourguignon, among others, are considered, and the functions of these states in societies, including our own, are dealt with.

**231-3 Folklore and Modern Life.** The folklore of a culture influences both the unconscious and conscious actions of people in subtle ways and each study helps to account for both the good and the bad which we see in ourselves and in others. The course introduces the student to the study of folklore and serves to emphasize the importance of the study of folk beliefs and their role in understanding our and other contemporary societies.

**241-3 Slaves and Slavery in New World Societies.** Focuses on slavery and slave systems in New World societies from a comparative historical and social anthropological/sociological perspective.



**251-3 Anthropology and Science Fiction.** An examination of the basic concepts of anthropology through the prism of science fiction literature.

**261-3 Issues in Popular Anthropology.** A presentation of issues of popular interest which can be clarified through anthropological examination. Among these are the issues of creationism versus evolution, ancient astronauts, the Abominable Snowman, the lost civilization of Atlantis, primitive languages and peoples, and the diversity of sexual practices. The course traces the origins of these issues and beliefs as aspects of American popular culture.

**300A-3 Introduction to Physical Anthropology.** An introduction to the study of human evolution. Topics include: evolutionary theory and its history, human genetics, nonhuman primates, the human fossil record, and the origins of races. No prerequisites.

**300B-3 Introduction to Linguistic Anthropology.** Introduces the concept of culture as revealed through human language. Provides both theory and methodology basic to linguistics and non-linguistic specialists within anthropology.

**300C-3 Introduction to Archaeology.** Theory and method of anthropological archaeology for non-majors and majors.

**300D-3 Introduction to Social-Cultural Anthropology.** Ways in which humans organize themselves for action. Emphasis will be on the social anthropological approaches to problem definition and theory. Comparative and functional analysis of kinship, economic, political, religious, and legal systems of non-Western cultures.

**301-3 Language in Culture and Society.** A survey of the cultural and social nature of language for the non-specialist. Topics include human and animal communication, diversity and universals of human language, expressive use of language, the relation of language and world view, social aspects of language, language and meaning.

**302-3 Indians of the Americas.** A region by region survey of the native Americans of North, Middle, and South America. Emphasis is on lifeways: ecology and environment, subsistence, economy, social organization, religion, art, music, and other aspects of culture. A brief introduction to pre-history and language is included.

**304-3 Origins of Civilization.** A study of complex environmental and cultural factors that led to a rise and fall of early high-cultures. The course will concentrate in alternate years on the Old World (Africa and Euro-Asia) and the New World (North, Middle, and South America).

**320-3 Human Growth, Development, and Adaptation.** The effect of environmental and genetic factors on human development will be examined. Certain classical problems will be studied as they relate to human adaptation, e.g. the physiology of high altitude adaptation, and human thermoregulatory adaptations. Prerequisite: 300A or consent of instructor.

**330-3 Biological Foundations of Human Behavior.** Discussion of human sexual behavior, the opposition of violence and aggression with cooperative behavior, and the anthropological background of facts concerning whether these behaviors are driven by biological (instinctual) or purely cultural factors.

**360-3 American Culture.** A study of the United States and its subcultures, using anthropological concepts and description to provide a focus for American students on their own culture and an understanding for foreign students of the complexities of American behavior, values, and social structure. Examines subcultures defined by race and ethnicity, immigrant assimilation and culture contact, and experiments in alternative living.

**370-3 Anthropology and Contemporary Human Problems.** The contribution of anthropology to an understanding of contemporary human problems of environmental crisis, world hunger and overpopulation, social stratification and internal order, war and international order. The approach is cross-cultural drawing on knowledge of all societies and cultures in space and time. Anthropological fundamentals are introduced at the beginning.

**376-2 to 8 Independent Study in Classics Program.** (See Classics 496.)

**400A-3 Theory and Method in Physical Anthropology.** Current topics in biological evolution and variation, including the theoretical and methodological background to each. Topics will be drawn from the four major areas of physical anthropology: genetics and evolutionary theory, primate studies, human fossil record, and human variation. Prerequisite: 300A for undergraduates or consent of instructor.

**400B-3 Theory and Method in Linguistic Anthropology.** History of linguistic anthropology. Description and analysis of languages. Origin, development, and acquisition of language. Theory of symbolic systems. Human and animal communication. Historical linguistics. Languages in culture and society. Prerequisite: 300B for undergraduates or consent of instructor.

**400C-3 Theory and Method in Archaeology.** Overview of the currents and controversies in anthropological archaeology in their historical and theoretical context. Topics include history of archaeological theory, explanation in archaeology, limitations of the archaeological record, and archaeological approaches to the study of cultural variation. Prerequisite: 300C for undergraduates or consent of instructor.

**400D-3 Theory and Method in Sociocultural Anthropology.** Overview of contemporary approaches to social and cultural research in anthropology. Attention is given to such topics as structural functionalism, cultural ecology, dialectical and cultural materialism, ethnoscience, sociobiology, neo-Darwinism, symbolism, and cross-cultural comparison. Problem areas investigated include kinship, social structure, comparative economics, political organizations, religion, culture and personality, environmental adaptation, cultural change. Prerequisite: 300D for undergraduates or consent of instructor.



- 402-3 People and Culture.** Offered primarily for non-anthropology majors. Focuses on the nature of culture, cultural processes, and cultural change with emphasis on social, political, economic, artistic, religious, and linguistic behavior of humans as individuals and in social groups.
- 404-3 Art and Technology in Anthropology.** An introduction to the basic ways in which people utilize the natural resources of their habitat to meet various needs, such as food, shelter, transportation, and artistic expression. The nature of art, its locus in culture, and its integration into technical society will be considered.
- 406-3 Conservation Archaeology.** The method and theory of archaeology in relationship to local, state, and federal laws regarding the protection and excavation of antiquities. Emphasis is on problem-oriented survey and excavation, as well as the preparation of archaeological contracts and the writing of reports to satisfy statutes involving environmental concerns. Prerequisite: 300C or 400C or consent of instructor.
- 409-3 History of Anthropology.** The development of anthropological thought in the four subfields of the discipline (sociocultural, physical, linguistics, archaeology). Emphasis is on concepts, ideas, and work and major practitioners of the early 19th to the middle of the 20th centuries, and on the major trends that have led to specialties found in anthropology today. The present status of anthropology as an academic discipline is briefly explored, and an attempt is made to assess the future of the discipline in terms of intellectual and practical concerns.
- 410A-3 Applied Anthropology.** The practical applications of theoretical social anthropology. Problems of directed culture change are examined from an anthropological perspective as they apply to the work of the educator, social worker, extension agent, administrator, and others who are attempting to guide change in the life ways of others in Western culture and the third world. Prerequisite: none. 300D recommended for undergraduates.
- 410B-3 Educational Anthropology.** An examination of the cultural processes of formal and informal education, the use of anthropological premises in educational program design, bicultural-bilingual education programs, comparative American-non-American systems, and the teaching of anthropology. Prerequisite: none. 300D recommended for undergraduates.
- 410C-3 Economic Anthropology.** The study of non-Western economic systems. Prerequisite: none. 300D recommended for undergraduates.
- 410D-3 Anthropology of Folklore.** A comparative study of the role of folklore in various cultures of the world, with emphasis upon nonliterate societies. Analysis of motifs, taletypes, themes and other elements; comparisons between nonliterate and literate groups. Prerequisite: none. 300D recommended for undergraduates.
- 410E-3 Anthropology of Law.** Anthropological thought on imperative norms, morality, social control, conflict resolution and justice in the context of particular societies, preliterate and civilized. Law of selected societies is compared to illustrate important varieties. Prerequisite: none. 300D recommended for undergraduates.
- 410F-3 Anthropology of Religion.** A comparative study of (religious) belief systems, with emphasis upon those of non-literate societies. Examination of basic premises and elements of these belief systems, normally excluded from discussions of "Great Religions". Prerequisite: none. 300D recommended for undergraduates.
- 410G-3 Psychological Anthropology.** Similarities and differences in personality structures cross-culturally including the historical development of this as an anthropological subdiscipline. Prerequisite: none. 300D recommended for undergraduates.
- 410H-3 Ethnomusicology of Oceania, Asia and Africa.** A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Oceania, Asia, and Africa.
- 410I-3 Ethnomusicology of Middle East, Europe and the New World.** A survey of theory, method, structure, organology, and cultural context of the ethnomusicology of Europe and the New World.
- 410J-3 Kinship and Social Organization.** Universal features of non-Western systems of kinship terminology and social organization. Topics include the structure and functioning of kinship systems, lineages, clans, sibs, phratries, moieties, and tribal units. Prerequisite: none. 300D recommended for undergraduates.
- 410K-3 Ecological Anthropology.** An examination of the relationship of past and present human populations in the context of their natural and social environments. Prerequisite: 300C and 300D or equivalent.
- 425-3 Cognitive Anthropology.** The theory of culture as cognitive organization is explored. Among the topics are: Formal analysis of lexical domains, folk classifications and strategies, the problem of psychological validity, linguistic determinism and relativity, biogenetic and psycholinguistic bases of cognition, and the "new ethnography."
- 430A-3 Archaeology of North America.** Detailed study of the early cultures of North America. Emphasis on the evolutionary cultural development of North America. Prerequisite: 300C or 400C or consent of instructor.
- 430B-3 Archaeology of Meso-America.** Detailed study of the early cultures of Meso-America with emphasis on the evolutionary cultural development of Meso-America. Prerequisite: 300C or 400C or consent of instructor.
- 430C-3 Archaeology of the Southwest.** Detailed study of the early cultures of the Southwest with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.



- 430D-3 Archaeology of the Old World.** Detailed study of the early cultures of the Old World with emphasis on the evolutionary cultural development of the area. Prerequisite: 300C or 400C or consent of instructor.
- 430E-3 Archaeology of the Eastern Woodlands.** Detailed study of the early cultures of the North American Eastern Woodlands with emphasis on the evolutionary development of cultures. Prerequisite: 300C, 302, 400C or 430A or consent of instructor.
- 440A-3 Human Evolution.** An advanced consideration of the fossil evidence for human evolution and evaluation of the various theories regarding the course of human evolution. Prerequisite: 300A or consent of instructor.
- 440B-3 Race and Human Variation.** A consideration of the range, meaning and significance of contemporary human biological variation, including evolutionary and adaptive implications and the utility of the race concept. Prerequisite: 300A or consent of instructor.
- 441-6 (3, 3) Laboratory Analysis in Archaeology.** (a) Emphasizes methods of analysis in archaeology as part of a larger research design created by the student. May be taken independently or as a follow-up to 496. (b) Emphasizes technical methods of the physical and natural sciences in archaeological analysis, as used in environmental reconstruction, dating, and for the investigation of production and exchange.
- 442-1 to 12 Working with Anthropological Collections.** Management, curation, and analysis of anthropological collections as part of a research project created by the student. May be taken independently or as a follow-up to 450, 495, 496, or 597.
- 444-3 Human Genetics and Demography.** A course in human genetics with an emphasis on population genetics and demography of modern and ancient human populations. Prerequisite: 300A, 400A or consent of instructor.
- 450-6 (3, 3) Museum Studies.** A detailed study of museum operation to include (a) methodology and display and (b) administration, curation, and visits to or field work with area museums. Practical museum work will be stressed in both (a) and (b) and (a) must be taken before (b).
- 455-3 to 15 (3 per topic) Topics in Physical Anthropology.** Intensive study of one of the major subfields within physical anthropology. (a) Dental anthropology. (b) Laboratory methods. (c) Primate behavior and evolution. (d) Quantitative methods. (e) Epidemiology. Prerequisite: 300a or consent of instructor.
- 460-1 to 12 Individual Study in Anthropology.** Guided research on anthropological problems. The academic work may be done on campus or in conjunction with approved off-campus (normally field research) activities.
- 470-3 to 24 People and Cultures.** A survey of the prehistory, cultural history, and contemporary cultures of the area in question. Topical emphasis may vary from course to course and year to year. (a) Africa, (b) Asia, (c) Caribbean, (d) Europe, (e) Latin America, (f) Near East and North Africa, (g) North America, (h) Oceania. Prerequisite: a basic acquaintance with geography and history of the areas.
- 480-3 Honors Seminar.** Topics to be arranged by agreement of participating faculty and students. Not open to graduate students. Prerequisite: consent of department.
- 490-3 Field Methods and Analysis in Linguistic Anthropology.** Includes theoretical background and a project in the linguistic aspects of culture. Prerequisite: 300B, 301, or 400B.
- 495-6 to 8 Summer Ethnographic Field School.** An eight-week field research training program in Southern Illinois communities. Students will attend seminars on campus and in the field, but the greater part of the time will be spent engaging in continuous team research under the direction of the faculty members involved in the program. Some form of cooperative living arrangement will be organized. The program is open to advanced undergraduate and graduate students. Prerequisite: consent of instructor.
- 496-1 to 8 Field School in Archaeology.** Apprentice training in the field in archaeological method and theory. Students will be expected to be in full-time residence at the field school headquarters off campus. Prerequisite: consent of instructor.
- 499-3 Honors Thesis.** Directed reading and field or library research. The student will write a thesis paper based on original research. Not open to graduate students. Prerequisite: consent of department.
- 501-6 (3, 3) Practicum in Educational Anthropology.**
- 510-2 to 6 (2 to 3 per topic) Seminar in New World Archaeology.**
- 511-2 to 6 (2 to 3 per topic) Seminar in Meso-American Archaeology.**
- 512-2 to 6 (2 to 3 per topic) Seminar in Old World Archaeology.**
- 513-2 to 6 (2 to 3 per topic) Seminar in Archaeology.**
- 515A-3 Seminar in Social-Cultural Anthropology.**
- 515B-3 Seminar in Social-Cultural Anthropology.**
- 520-2 to 6 (2 to 3 per topic) Seminar in New World Ethnology.**
- 521-2 to 6 (2 to 3 per topic) Seminar in Ethnology of Latin America.**
- 522-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Oceania.**
- 523-2 to 6 (2 to 3 per topic) Seminar in Anthropology of Africa.**
- 530-2 to 6 (2 to 3 per topic) Seminar in Physical Anthropology.**
- 540-3 Pidgin and Creole Languages.**
- 545-2 to 6 (2 to 3 per topic) Seminar in Anthropological Linguistics.**

560-2 to 6 (2 to 3 per topic) Seminar in Comparative Social Organization.  
 562-2 to 6 (2 to 3 per topic) Seminar in the Anthropology of Contemporary Peoples.  
 565-2 to 6 (2 to 3 per topic) Seminar in Culture Change and Development.  
 567-2 to 6 (2 to 3 per topic) Seminar in Anthropological Theory and Method.  
 576-2 to 6 (2 to 3 per topic) Seminar in Anthropological Research Design.  
 581-2 to 6 (2 to 3 per topic) Seminar in Anthropology.  
 585-1 to 12 (1 to 3 per semester) Readings in Anthropology.  
 590-1 to 12 Internship in Conservation Archaeology.  
 595-3 Field Methods in Ethnology.  
 597-1 to 12 Fieldwork in Anthropology.  
 599-1 to 6 Thesis.  
 600-1 to 32 (1 to 12 per semester) Dissertation.  
 601-1 to 12 per semester Continuing Research.

## Aquatics (minor)

(SEE PHYSICAL EDUCATION)

## Architectural Technology (Program, Major, Courses)

The continuing growth of the architectural profession requires large numbers of technicians whose training has provided a firm foundation for supporting roles in today's profession and the basis for skill development in emerging activities. The architectural technology program offers this training in a curriculum designed to produce the skills in highest demand in the market for newcomers to the profession. Appropriate general education and field trips to architects' offices and projects supplement the technical offerings.

Intelligent, motivated students with mathematical, artistic, or manual skills will be most successful in the program. Students are required to provide their own drafting equipment and normal supplies. A suggested list of equipment will be provided upon request at the time of registration. There will be a charge by semester for such items as special presentation materials, field trips, locker usage, etc. The charges will be for all those taking architectural courses and will total approximately \$150 for the four required semesters.

Architects who hold professional degrees and have many years of professional and teaching experience constitute the faculty. The program has been approved by the American Institute of Architects.

An advisory committee whose members are practicing architects chosen for their understanding of today's needs in the profession and their interest in education assists the faculty in maintaining a current curriculum. Members currently serving on the advisory committee are: Edward F. Bartz, Jr., FAIA, Hellmuth-Obata and Kassabaum, Belleville, William E. Gramley, AIA, Phillips-Swager Associates, Peoria, Frederick W. Salogga, FAIA, Salogga-Bradley-Likins-Dillow, Decatur, and William H. Stein, AIA, Fischer-Stein Associates, Carbondale.

Graduates will have an understanding of the design profession, design and production processes, and other components of the construction industry. Their usual point of entry into the profession is as drafting technicians producing construction drawings. As they gain experience they may develop capabilities to accept more responsibility in such areas as project coordination, specification writing, estimating, various types of engineering, construction inspection, architectural design, and presentation.

There are also nonprofessional opportunities in the construction industry with manufacturers, material suppliers, contractors, and developers.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experience.



Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Architectural Technology

GE-D 101, 153 .....	6
School of Technical Careers 102, 105a,b, 107a,b.....	10
Architectural Technology 111, 112, 113, 124, 125, 214, 215, 216, 217, 219, 220, 224, 225, 226, 229 .....	60
Total.....	76

Courses

**111-7.5 Architectural Drafting.** Use of drafting instruments, lettering and linework; geometric construction, projections, sections and intersections; pictorial drawing, perspective, shades and shadows, and reflections. Lecture three hours. Laboratory nine hours. Prerequisite: major in architectural technology or consent of coordinator of architectural technology.

**112-3.5 Architectural Graphics.** Freehand drawing; various techniques in black and white media; theory and use of color; delineation techniques in various color media. Lecture one hour. Laboratory five hours. Prerequisite: major in architectural technology or consent of coordinator of architectural technology.

**113-3 Architectural History.** The study of the influences and development of the built environment from prehistoric to contemporary. In particular the study of structure, aesthetics, and language of architecture.

**124-6 Architectural Drawings I.** Introduction to basic materials and components used in contemporary construction. A survey of manufacturing methods, available sizes, performance characteristics, quality, finishes and applications. Usage of vendor's brochures and standard references. Preparation of working drawings in light wood frame construction to practice current procedures, dimensioning, notation, design, correlation, with standard and creative detailing. Lecture three hours. Laboratory six hours. Prerequisite: 111 and major in architectural technology or consent of coordinator of architectural technology.

**125-4 Architectural Design I.** Problem solving in architectural design with emphasis on design elements and principles, human scale, methods and procedures, composition, and presentation. Architectural projects of relatively small scope and simple nature; and introducing factors of circulation and environmental control. Lecture one hour. Laboratory five hours. Prerequisite: 111, 112, and 113 and major in architectural technology or consent of coordinator of architectural technology.

**214-6 Architectural Drawings II.** Continuing study of materials and practices in document preparation for non-complex buildings using masonry and reinforced concrete construction. Investigation and use of local, state, and federal codes regulating health and safety. Construction techniques relating to criteria or permanence, low maintenance and budget requirements. Working drawings for single floor, non-residential buildings. Lecture three hours. Laboratory six hours. Prerequisite: 124 and major in architectural technology or consent of coordinator of architectural technology.

**215-4 Architectural Design II.** Continuing study of architectural design with application of principles to projects of increased scope and complexity, with attention to research, site planning, and comprehensive feasibility. Presentations in various media. Lecture one hour. Laboratory five hours. Prerequisite: 125 and major in architectural technology or consent of coordinator of architectural technology.

**216-4 Architectural Engineering I.** Elementary study of forces and force systems using graphical and mathematical solutions. Basic engineering concepts. Reactions, shear and moment diagrams. Axial, banding, and eccentric loading on beams and columns. Application of principles in design with wood, steel, and concrete. Floor and roof support systems using dead and live load calculations. Lecture four hours. Prerequisite: School of Technical Careers 105a,b, 107a,b and major in architectural technology or consent of coordinator of architectural technology.

**217-2 Architectural Systems.** Basic principles of mechanical and electrical equipment of buildings. Familiarization with water supply and sanitation systems. Fundamentals of properties of heat, sources, transmission, air conditioning, and purification systems. Introduction to vertical and horizontal transportation. Fundamentals of illumination and electrical systems. Fundamentals of acoustics and materials for reflection, attenuation, and isolation. Lecture two hours. Prerequisite: School of Technical Careers 105a, b, 107a, b, and major in architectural technology or consent of coordinator of architectural technology.

**219-2 Site Work and Planning.** Fundamentals of typography, site planning, building location, preparation of detailed site drawing, introduction to use of surveying equipment. Lecture two hours. Prerequisite: 124 and major in architectural technology or consent of coordinator of architectural technology.

**220-2 Architectural Specifications.** Function of specifications as a contract document. The relationship of specifications to architectural drawings. Organization and format. Content of various



sections. Lecture two hours. Prerequisite: concurrent with 224 and major in architectural technology or consent of coordinator of architectural technology.

**224-6 Architectural Drawings III.** Continuing study of materials and practice in document presentation for construction of multi-floor buildings of a more complex nature. Contemporary materials, components and systems. Steel and concrete framing systems using short and longspan steel joists, steel pans, pre- and post-tensioned precast components. Correlation with electrical, mechanical, and structural work. Lecture three hours. Laboratory six hours. Prerequisite: 214, 219, and major in architectural technology or consent of coordinator of architectural technology.

**225-4 Architectural Design III.** Continuing application of architectural design principles and procedures to projects of higher factor of usage, or greater scope and complexity of function and circulation. Continuing practice in presentation with various media. Lecture one hour. Laboratory five hours. Prerequisite: 215 and major in architectural technology or consent of coordinator of architectural technology.

**226-4 Architectural Engineering II.** Continuing study of structural framing materials and systems. Design and investigation of framing components of wood, steel, and concrete. Usage of wood, steel, and concrete handbooks. Standard connections and fastening methods. Concrete design, quality control, and field inspection. Beams, columns, lintels, foundations, footings, and retaining walls. Lecture four hours. Prerequisite: 216 and major in architectural technology or consent of coordinator of architectural technology.

**229-2 Architectural Estimating.** Estimating methods. Material lists and quantities. Material and labor costs. Factors affecting costs. Lecture two hours. Prerequisite: School of Technical Careers 105a,b; Architectural Technology 214 and major in architectural technology or consent of coordinator of architectural technology.

**316-3 Architectural Engineering III.** Continuing study of framing materials and systems for buildings using advanced concepts of structural analysis. Included are earthquake resistant structures, composite beams, plastic theory, statically indeterminate structures, long spans, moment distribution, multi-story structures, etc. Prerequisite: 226

**318-3 Architectural CADD I.** Introduction to, and the development of the competencies and skills in the use of computer aided design and drafting in the architectural disciplines. Includes the development of two dimensional drawings using the C.A.D. system. Prerequisite: 111 and consent of instructor.

**319-3 Computer Applications in Architecture.** Teaches how to use available computer facilities to solve architectural problems. Students learn how to write simple computer programs to implement several technical design procedures taught in the architectural technology program. Prerequisite: elementary computer course, equivalent architectural preparation, or consent of instructor.

**328-3 Architectural CADD II.** Skill development of the computer aided drafting system in the preparation of contract documents in all architectural disciplines and specifically working drawings. Emphasis will be placed upon developing competencies in data and graphics repeatability. Prerequisite: 318 and consent of instructor.

**338-3 Architectural CADD III.** Skill development in the computer aided design system in the schematic and design development phases of all architectural disciplines. The use of the computer aided design system as a tool for three dimensional creative problem solving. Prerequisite: 328 and consent of instructor.

**354-8 Architectural Project Development.** Correlation of the design, design development, and construction drawing phases of a building project. Development of a project from the initial program through the three phases with appropriate drawings required for each phase. Prerequisite: 224, 225, and School of Technical Careers baccalaureate major or consent of coordinator of architectural technology.

## Army Military Science (Department, Courses)

Army military science studies is a voluntary course sequence which leads to a commission as an officer in the United States Army (active army, army reserves, or army national guard). The basic course, consisting of six 100 and 200 level courses is open to all students and carries no military obligation. Students may take one or all the basic courses offered, receiving credit hours for each course, without incurring a commitment to further study in army military science or any branch of the armed forces. If a student continues into the advanced course, the student will then incur a military obligation. The obligation may be served in the active army, army reserves, or army national guard after the student is commissioned an officer, upon completion of the army military science program. Students who wish to complete the program must also complete a bachelor's degree, although the field of study is unrestricted.



Veterans of any service, students who are currently members of the armed forces (reserve or national guard), and students who have successfully completed four years of Junior Reserve Officer Training Corps instruction, may be eligible to enroll into the advanced course once they have obtained sophomore academic status at the University. Students who have no prior military service may attend a six week basic camp at Fort Knox, Kentucky, which will qualify them for entrance into the advanced course of army military science. The six weeks camp incurs no obligation on the part of the student.

All students enrolled in the advance course must attend a six week advance camp at Fort Riley, Kansas, between the first and second years of the advance course (normally the summer between the junior and senior school year). Both the basic and advanced camp pay the student for travel and attendance at camp, plus provide free room, board, and uniforms.

Financial assistance is available in the form of Illinois State ROTC scholarships, national ROTC scholarships, and a tax free \$100 per month (for ten months) subsistence pay for all students in the advanced course.

## Courses

**101-1 U.S. Defense Establishment.** An examination of the realities of conflict and the U.S. institutional response to conflict. Includes the history, organization, and mission of the U.S. defense establishment and explores the implications of an individual's decision to exercise leadership within the context of the defense establishment.

**102-1 or 2 Land Navigation and Traverse.** An introduction to land navigation involving the use of the compass, topographic maps, the sun, and prominent stars. Includes terrain traverse techniques such as simple free climbing and rappelling. Competitive compass exercises will also be presented as well as other outdoor practical exercise.

**103-2 Rifle Marksmanship and Safety.** An introduction to the training and firing techniques for small bore rifle and pistol match competition, rifle range safety, and safety precautions in the use and handling of firearms and handguns. Mandatory Pass/Fail.

**201-3 Small Group Dynamics and Leadership.** Applied leadership in a small group context. Exercises in self confidence, group communications, and leadership evolved from situations where the group is required to function and survive on a self-sufficient basis. Principles of survival and cooperative effort will be explored in depth, with maximum involvement of the student in leadership and problemsolving roles.

**202-2 The Military Management System.** A study of the military management system including the functional aspect of leadership within the military structure. Includes the presentation of military leadership traits, style, and approaches; managerial techniques, and communications.

**258-1 to 13 Leadership Equivalency.** One to seven hours work experience credit for 101, 102, 201, 202, and six hours of work experience credit for ROTC advanced camp. Credit will be evaluated by the professor of military science. Prerequisite: satisfactory completion of the academic phase of the six week field training programs.

**301-3 or 4 A Study of Organizational Leadership.** A multi-faceted approach to the study of leadership in both a military and civilian setting. Emphasis is placed upon human behavior; communication, the individual as a leader, group dynamics, and the military's interface with society. An extensive block on the branches of the army is also presented. Includes leadership laboratory. Prerequisite: credit for six hours of 100 and 200 level courses or 258.

**302-3 Small Unit Tactics.** The student is introduced to small unit tactical operations at the platoon and company level. Offensive, defensive, and retrograde operations are covered in detail. Unit organization and patrolling are also stressed. Practical exercises are conducted in the classroom and in field environments. Prerequisite: credit for six hours of 100 and 200 level courses or 258.

**358-6 Advanced Leadership Camp.** A special six-week field study training program designed to further prepare Army ROTC advanced course students for the basic tasks that will be required of them as junior officers and leaders in the Army. The course is normally conducted at Fort Riley, Kansas, during the summer. Prerequisite: consent of the professor of military science.

**401-3 or 4 Advanced Leadership and Management.** An analysis of selected leadership and management problems in the following military subjects: unit administration at company level emphasizing correspondence; fundamental concepts of military justice in the armed forces of the United States, including the procedures by which judicial and nonjudicial disciplinary measures are conducted; U.S. Army readiness program as it deals with unit maintenance; the position of the United States in the contemporary world scene discussed in the light of its impact on leadership and management problems of the military service; and a fundamental knowledge of the logistical support available to the unit. Leadership development is continued by the application of leadership principles, stressing responsibilities of the leader, and increasing experience through practical exercises. Includes leadership laboratory. Not for graduate credit.

**402-3 Fundamentals and Dynamics of the Military Team.** This course is designed to give the

students a working knowledge in the theory and dynamics of the military team. Generally this includes a study of combat operations by the various military teams, with emphasis on the planning and coordination necessary between the elements of the team. The subjects to be presented during this three-hour block of instruction include an understanding of command and staff organization at the battalion level, military intelligence methods and procedures used to obtain the intelligence, and an analysis of the principles used in internal defense and development, emphasizing tactical operations which include civil affairs. Since this course is presented just prior to the commissioning of the cadets, several hours of instruction are presented near the end of the school year on the obligations and responsibilities of an army officer. Leadership laboratories one hour per week. Not for graduate credit.

**403-1 to 3 Independent Study in Military Science.** Directed independent study in selected areas. Students may register for one hour per semester or may register for one hour for the first semester and two hours for the second. They may not register for three hours during one semester. Not for graduate credit. Prerequisite: consent of the professor of army military science.

## Art (School, Majors [Art and Design], Courses)

The major objectives of the School of Art at Southern Illinois University at Carbondale are (1) to provide programs of quality and professional education in art; (2) to provide quality education in general education; and (3) to contribute to the aesthetic, scholarly, and cultural life of the disciplines in the arts and to society in general. Students at all levels of study are expected to strive for the high degree of excellence that is consistent with the ideals and philosophy of the School of Art.

Undergraduate offerings in the School of Art provide both introductory and specialized experiences. The school offers two majors: art and design. The major in art, with specializations in drawing, painting, printmaking, sculpture, ceramics, metalsmithing, and fibers/weaving, leads to the Bachelor of Fine Arts degree and the specializations in art education, art history, and general studio lead to the Bachelor of Arts degree. The major in design, with specializations in visual communications and product design, leads to the Bachelor of Arts degree.

### ART MAJOR

#### **Bachelor of Fine Arts Degree, College of Communications and Fine Arts**

A student majoring in art should select one of the following fields of interest by the end of the sophomore year: drawing, painting, printmaking, sculpture, ceramics, metalsmithing, or fiber/weaving.

#### ART MAJOR—DRAWING SPECIALIZATION

<i>General Education Requirements</i> .....	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Drawing</i> .....	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203,	
207a, 207b, 300a .....	(6) + 27
Art 204, 205, or 206 .....	3
Art history electives .....	6
Art 202, 300b, 300c, 301a, 301b, 302a,	
or 302b, or 302c, 400a, 400b, 400c .....	33
Studio art electives .....	21
<i>Total</i> .....	135

#### ART MAJOR—PAINTING SPECIALIZATION

<i>General Education Requirements</i> .....	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Painting</i> .....	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203,	



207a, 207b, 300a . . . . .	(6) + 27
Art 204, 205, or 206 . . . . .	3
Art history electives . . . . .	6
Art 202, 300b, 301a, 301b, 301c, 302a, or 302b, or 302c, 401a, 401b, 401c . . . . .	33
Studio art electives . . . . .	21
<i>Total</i> . . . . .	135

ART MAJOR-PRINTMAKING SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Printmaking</i> . . . . .	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, 300a . . . . .	(6) + 27
Art 204, 205, or 206 . . . . .	3
Art history electives . . . . .	6
Art 202, 300b, 300c, 301a, 302a, 302b, 302c, 402a, 402b, 402c . . . . .	36
Studio art electives . . . . .	18
<i>Total</i> . . . . .	135

ART MAJOR-SCULPTURE SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Sculpture</i> . . . . .	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, and 300a, 300b, or 300c . . . . .	(6) + 27
Art 204, 205, or 206 . . . . .	3
Art history electives . . . . .	6
Art 303-9, 403a, 403b, 403c . . . . .	24
Electives from craft area . . . . .	6
Studio art electives . . . . .	24
<i>Total</i> . . . . .	135

ART MAJOR-CERAMICS SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Ceramics</i> . . . . .	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, and 300a, 300b, or 300c . . . . .	(6) + 27
Art 205 or 206 . . . . .	3
Art history electives . . . . .	6
Art 204, 303a, 304a, 304b, 404a, 404b, 404c, 404d-6 . . . . .	30
Electives from crafts area . . . . .	3
Studio art electives . . . . .	21
<i>Total</i> . . . . .	135

ART MAJOR-METALSMITHING SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Metalsmithing</i> . . . . .	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, and 300a, 300b, or 300c . . . . .	(6) + 27
Art 204 or 206 . . . . .	3
Art history electives . . . . .	6

Art 205, 303a, 305a, 305b, 405a, 405b, 405c, 405d-6. . . . .	30
Electives from crafts area . . . . .	3
Studio art electives . . . . .	21
<b>Total.</b> . . . .	<b>135</b>

## ART MAJOR—FIBERS/WEAVING SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in Fibers/Weaving</i> . . . . .	(6) + 90
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, and 300a, 300b, or 300c . . . . .	(6) + 27
Art 204 or 205 . . . . .	3
Art history electives . . . . .	6
Art 202, 206, 306a, 306b, 406a, 406b, 406c, 406d-6. . . . .	30
Electives from craft area . . . . .	6
Studio art electives . . . . .	21
<b>Total.</b> . . . .	<b>135</b>

**Bachelor of Arts Degree, College of Communications and Fine Arts**

A student major in art with a specialization in art history, art education, or general studio should select the specialization by the end of the sophomore year.

## ART MAJOR—ART HISTORY SPECIALIZATION

<i>General Education Requirements</i> . . . . .	49
Art 100a and 207 must be taken as approved substitutes in GE-C. 8 hours of foreign language (French or German) are required, four of which will not count toward General Education Requirements.	
<i>Requirements for Major in Art with Specialization in Art History</i> . . . . .	(6) + 60
Art 100a, 100b, 107, 110, 120, 201, 203, 207, and 204, 205, or 206. . . . .	(6) + 21
Art 217, 346, and 27 hours selected from 307, 317, 329, 349, 439, 447, 449, 457, 467, 477, 497 . . . . .	33
Art electives . . . . .	6
<i>Electives.</i> . . . .	11
To be chosen from philosophy, history, anthropology, classical studies, foreign languages, religious studies, or other courses approved by the School of Art	
<b>Total.</b> . . . .	<b>120</b>

## ART MAJOR—GENERAL STUDIO SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Art with Specialization in General Studio</i> . . . . .	(6) + 60
Art 100a, 100b, 107, 110, 120, 200, 201, 203, 207a, 207b, and 300a, 300b, or 300c . . . . .	(6) + 27
Art 204, 205, or 206 . . . . .	3
Art history electives . . . . .	3
Art electives . . . . .	21
Six hours selected from Commercial Graphics, Cinema and Photography, or Design . . . . .	6
<i>Electives.</i> . . . .	15
<b>Total.</b> . . . .	<b>120</b>



**Bachelor of Arts Degree, College of Communications and Fine Arts or  
Bachelor of Science Degree, College of Education**

ART MAJOR—ART EDUCATION SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C, GE-B 212 or 301 and GE-B 202, GE-C literature, GE-E 201 and two hours of physical education courses.	
<i>Requirements for Major in Art with Specialization in Art Education</i> . . . . .	(6) + 50
Art 100a, 100b, 107, 110, 120, 201, 203, 207a, 207b . . . . .	(6) + 21
Art 204, 205, and either 202 or 206 . . . . .	9
Art history electives . . . . .	3
Studio art electives . . . . .	7
Art 308, 318, 328a, 338a, 328b or 338b . . . . .	10
<i>Professional Education Requirements</i> . . . . .	25
See Teacher Education Program, page 83.	
<i>Total</i> . . . . .	120

**Minor**

A total of 21 hours is required for the minor. The student must complete 100a, 100b, 107, and 207 for 12 hours and may then elect studio or art history courses for the remaining nine hours.

DESIGN MAJOR

**Bachelor of Arts Degree, College of Communication and Fine Arts**

A student majoring in design should select one of the following specializations by the end of the sophomore year.

DESIGN MAJOR—PRODUCT DESIGN SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Design with Specialization in Product Design</i> . . . . .	(6) + 75
Art 100a, 100b, 107, 110, 207a, 207b . . . . .	(6) + 12
Art 203, 204, 205, or 206 . . . . .	6
Design 102, 201, 202, 252, 254, 312, 362, 406, 412, 413, 462, 494 . . .	38
Approved electives . . . . .	19
<i>Total</i> . . . . .	120

DESIGN MAJOR—VISUAL COMMUNICATION SPECIALIZATION

<i>General Education Requirements</i> . . . . .	45
Art 100a and 207 must be taken as approved substitutes in GE-C	
<i>Requirements for Major in Design with Specialization in Visual Communication</i> . . . . .	(6) + 75
Art 100a, 100b, 107, 110, 120, 207a, 207b, 302b . . . . .	(6) + 18
Design 102, 201, 254, 300, 304, 322, 372, 373, 405, 406, 422, 472 . . .	37
Art and design history electives . . . . .	3
Approved electives . . . . .	17
<i>Total</i> . . . . .	120

DESIGN MAJOR—COUNTRYTOWN SPECIALIZATION

Admissions to the countrytown specialization are suspended. Incoming students

are encouraged to consider the product design or visual communication specializations.

## Courses in Art

Art Education Courses:	308, 318, 328a, 328b, 338a, 338b, 348, 408, 508, 518
Art History Courses:	107, 207, 217, 307, 317, 329, 346, 349, 419, 439, 447, 449, 457, 467, 477, 497, 507, 517
Studio Courses:	100a, 100b, 110, 120, 200, 201, 202, 203, 204, 205, 206, 219, 300, 301, 302, 303, 304, 305, 306, 319, 400, 401, 402, 403, 404, 405, 406, 414, 415, 500, 501, 502, 503, 504, 505, 506, 514
Independent Study Courses:	257, 258, 259, 388, 309, 499, 599, 601

**100A-3 Two-Dimensional Design.** A fundamental design class dealing with two-dimensional concepts and materials. Emphasis will be placed on design problems which will develop perceptual skills and critical judgement. Studio fee \$3. Incidental expenses not to exceed \$50.

**100B-3 Three Dimensional Design.** A fundamental design class dealing with three-dimensional design concepts and materials. Emphasis will be placed on design problems which will develop perceptual skills and critical judgement. Studio fee \$10. Incidental expenses not to exceed \$30.

**107-3 Fundamentals of Art.** A study of the language of visual art and its use to communicate through visual media. Critical thinking is developed through visual awareness and the understanding of the universality of visual concepts.

**110-3 Introduction to Drawing I.** Designed to help the student experience the concepts and processes that constitute the language of graphic expression. The goal is a working understanding of the still life. Studio fee \$3. Incidental expenses not to exceed \$25.

**120-3 Introduction to Drawing II.** Designed to help the student experience the concepts and processes that constitute the language of graphic expression. The goal is a working understanding of inanimate and animate forms in space. Studio fee \$3. Incidental expenses not to exceed \$25.

**200-3 Introduction to Drawing III.** Concerned with the introduction to various media, compositional devices, spatial investigation, and the human figure. Studio fee \$22. Incidental expenses not to exceed \$25. Prerequisite: 120.

**201-3 Introduction to Painting.** Emphasizing material, techniques, processes, and ideas fundamental to the discipline of painting. Studio fee \$3. Incidental expenses not to exceed \$50. Prerequisite: 100a, b, 107, 110, 120, 207.

**202-3 Introduction to Printmaking.** Lectures and films on the basic printmaking processes: relief, intaglio, plano graphic, stencil, and cast paper. Emphasis on studio lab work in relief and intaglio, printmaking processes. Studio fee \$30. Incidental expenses not to exceed \$35. Prerequisite for art majors: 100a, b, 107, 110, 120, 207.

**203-3 Beginning Sculpture.** Emphasis experience in materials, techniques, processes, and ideas fundamental to the discipline of sculpture. Studio fee \$35. Incidental expenses not to exceed \$25. Prerequisite: 100a, b, 107.

**204-3 Beginning Ceramics.** Introduction to ceramic forming techniques of hand building and throwing on the potter's wheel. Students will explore traditional methods of ceramic form construction and will develop fundamental building skills through dialogue, projects, and problem-solving experiences. Studio fee \$33 to \$66. Incidental expenses not to exceed \$15. Prerequisite: 100a, b, 107.

**205-3 Beginning Jewelry and Metalsmithing.** An introduction to the fundamental skills and technology of jewelry and metalsmithing through practical experience. The properties of the medium will be explored and a survey of the field will be made. Studio fee \$24. Incidental expenses not to exceed \$10. Prerequisite: 100a, b, 107.

**206-3 Beginning Fibers.** A studio course providing experience in the material, techniques, processes, and ideas in basic dyed, printed, stitched, and non-loom fibers. Emphasis will be on the expressive use of the two- and three-dimensional qualities of fiber. Studio fee \$50. Incidental expenses not to exceed \$50. Prerequisite: 100a, b, 107.

**207-6 (3, 3) Introduction to Art History.** Introduction to the scope, methods, and subject matter of art history as a discipline. Emphasis in methodology and problem solving. (a) Covers prehistoric, ancient, medieval, and non-European art in all media. Prerequisite: 107. (b) Covers Renaissance through modern art in all media. Prerequisite: 207a.

**217-3 Methodology of Art History.** Lecture, discussion, and presentation of the research tools of art history, art historical logic, and the methods of art criticism.

**219-2 to 18 Workshop.** Workshop experience in specific studio and academic disciplines: (a) drawing, (b) painting, (c) watercolor, (d) printmaking, (e) sculpture, (f) ceramics, (g) glass, (h) fi-



bers, (i) metals, (j) art education, (k) art history, (l) papermaking. Studio fee \$3 to \$50, depending on course discipline. Each topic restricted to two hours per section.

**257-1 to 30 Work Experience.** Credits for concurrent or non-structured work performed which is related to the student's educational objective. Credit to be granted by department evaluation. Mandatory Pass/Fail.

**258-1 to 30 Work Experience.** Credit for past work performed which is related to the student's educational objective. Credit to be granted by departmental evaluation. No grade for past work experience.

**259-2 to 15 Transfer Credit.** Credit to be given for course work granted by any accredited educational institution or vocational institution. Prerequisite: any work accepted for transfer credit in art must be granted with the approval of the appropriate faculty.

**300-9 (3, 3, 3) Intermediate Drawing.** (a) Beginning figure drawing, (b) intermediate figure drawing, (c) advanced figure drawing. Studio fee \$30 to \$60. Incidental expenses not to exceed \$25 for each section. Must be taken in a, b, c sequence. Prerequisite: 200.

**301-9 (3, 3, 3) Intermediate Painting.** (a) Oil painting emphasizing the figure, (b) aqueous medium emphasized, (c) beginning individual problem solving. Studio fee: for a, \$30 to \$60; for b and c, \$3 to \$6. Incidental expenses not to exceed \$50 for each section. Prerequisite: 201; a and b must be taken before c.

**302A-3 Beginning Etching.** Introduction to the basic processes of intaglio printmaking, including etching, aquatint, engraving, and drypoint. Emphasis will be placed on black and white printing. Studio fee \$40. Incidental expenses not to exceed \$50. Prerequisite: 202 for students specializing in printmaking only.

**302B-3 Beginning Lithography.** Introduction to the history and basic processes of lithography, including use of stone and plate. Emphasis will be on black and white printing. Studio fee \$40. Incidental expenses not to exceed \$45. Prerequisite: 202 for students specializing in printmaking only.

**302C-3 Beginning Silkscreen.** Introduction to the basic processes and history of silkscreen; including construction of screen and hand and photographic stencil-making techniques. Studio fee \$40. Incidental expenses not to exceed \$45. Prerequisite: 202 for students specializing in printmaking only.

**303-9 (3, 3, 3) Intermediate Sculpture.** A studio orientation to tools, techniques, materials, and problems involved in historical and contemporary sculpture. Metal fabrication, figure, wood and stone carving, and plaster fabrication will be emphasized. Studio fee \$8 per credit hour enrolled. Incidental expenses not to exceed \$50. Prerequisite: 203.

**304-6 (3, 3) Intermediate Ceramics.** (a) Focuses on structured problems designed to encourage the student to apply basic forming skills experienced at the introductory level. Pottery shapes requiring singular and multiple form components will be investigated and simple glazing techniques will be introduced. (b) Stresses studio problems of a group nature and introduces glaze calculation as both theory and a practical tool. Personal and creative interpretation of assignments; some problems requiring group effort. Must be taken in a, b sequence. Studio fee \$50 to \$100. Incidental expenses not to exceed \$10 for each section. Prerequisite: 204.

**305-6 (3, 3) Intermediate Metalsmithing.** (a) Exploration of various processes emphasizing the diversity of the technical possibilities within the discipline of metalsmithing. (b) Emphasis placed on the use of these processes to develop individual styles. Studio fee \$24. Incidental expenses not to exceed \$25 for each section. Prerequisite: 205.

**306-6 (3, 3) Intermediate Fibers.** (a) Introduction to weaving; simple and floor looms; work in spinning, dyeing, stitching, printing, and non-loom fibers is encouraged. (b) Continued work in weaving and dyeing with emphasis on double weave, sculptural fibers, and warp and weft ikat. Emphasis on personal expression, craftsmanship, and imagery. Studio fee \$50. Prerequisite: 206.

**307-3 Ancient Art.** A survey of ancient art concentrating on Egyptian, Mesopotamian, Aegean, Greek, Etruscan, and Roman art. Special attention will be given to traditional art forms such as architecture, sculpture, and pottery. Additional art forms will be investigated as they are germane to a particular culture.

**308-3 Theories and Philosophies of Art Education.** Students develop an understanding of the major art issues in art education through examining theories and philosophies of art education. Areas of focus include trends in art education, child development in art, perceptual and psychological development, learning theory, and teaching methods. Requirements include extensive reading and preparation of a major paper.

**309-3 to 12 Independent Study.** To be used by majors in the School of Art to pursue independent research activities. Prerequisite: completion of all foundation courses, 3.0 grade point average, major in the School of Art, and consent of instructor.

**317-3 Medieval Art.** A survey of medieval art from ca. 250 A.D. to 1400 A.D. Early Christian, Byzantine, Celtic, Carolingian, Ottonian, Romanesque, and Gothic architecture, sculpture, and painting will be given, as well as representative examples of the minor arts where germane to a particular culture.

**318-2 Curriculum Development in Art Education.** Prepares students to organize art resources, materials, and concepts into effective art learning experiences. The focus is on integrating art concepts from art history, aesthetics, criticism, etc., with studio methods and techniques. Requirements include extensive reading, the preparation of a position paper on teaching art, and developing a curriculum document.



**319-3 Art Studio for Non-Majors.** General studio for the non-art major. Studio fee \$15 to \$40. Incidental expenses will be at least \$10 per semester.

**328A-2 Art Education Methods: Elementary.** Lecture and studio. Prepares students to teach children the fundamentals of art production. Areas of focus include teaching strategies and methods, art processes and techniques, and the appropriate use of tools and materials. Studio fee \$10. Incidental expenses not to exceed \$15.

**328B-1 Internship Laboratory.** Observation and pre-teaching experiences in educational settings.

**329-3 19th Century Art.** Survey of painting, sculpture, and architecture in Europe from the French Revolution to the end of the century. Includes such major stylistic movements as Neoclassicism, Romanticism, Realism, Impressionism, Post-Impressionism, and the roots of modern art.

**338A-2 Art Education Methods: Secondary.** Lecture and studio. Prepares students to teach adolescents the fundamentals of art production. Areas of focus include teaching strategies and methods, art processes and techniques, and the appropriate use of tools and materials. Studio fee \$10. Incidental expenses not to exceed \$15.

**338B-1 Internship Laboratory.** Observation and pre-teaching experiences in educational settings.

**346-3 Survey of 20th Century Art.** A survey of the major developments in painting, sculpture, architecture, and other selected areas of the visual arts from the beginning of the 20th century to the present. These developments are examined in relation to other significant cultural, scientific, and philosophical events of the 20th century.

**348-3 Art Education for Teachers.** Lecture and studio for non-art majors. Especially applicable to pre-school and K-6 grades. Introduction to uses and applications of art media, approaches to teaching and artistic awareness, concept development, creative expression, appreciation, art judgment, and knowledge of our art heritage. Studio fee \$10. Incidental expenses not to exceed \$15.

**349-3 Esthetics.** General survey of historical and contemporary philosophies of the beautiful with particular emphasis upon their relation to visual works of art and individual student research leading to the organization and presentation of a personal esthetic concept.

**388-1 to 36 Study Abroad.** Provides credit toward the undergraduate degree for study at an accredited foreign institution or approved overseas program. Final determination of credit is made on the student's completion of work. Prerequisite: one year of residence at this university, good academic standing, and prior approval of the department.

**400-3 to 30 (6, 6, 3, 3 to 15) Advanced Drawing I.** (a) Figure drawing. Not for graduate credit. Prerequisite: 300a, b, c. (b) Individual research. Not for graduate credit. Prerequisite: 400a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 400b. (d) Independent study in drawing. Prerequisite: for undergraduates, 400b; for graduates, consent of major adviser. Studio fee: for a and b, \$54 to \$108; for d, \$3 to \$6. Incidental expenses may exceed \$50 for each section.

**401-3 to 30 (6, 6, 3, 3 to 15) Advanced Painting I.** (a) and (b) Individual problem solving with emphasis on technical and conceptual synthesis. Not for graduate credit. Prerequisite: for a, 301a, b, c; for b, 401a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 401b. (d) Independent study in painting. Prerequisite: for undergraduates, 401b; for graduates, consent of major adviser. Studio fee for a, b, and d, \$3. Incidental expenses may exceed \$50 for each section.

**402-3 to 30 (6, 6, 3, 3 to 15) Advanced Printmaking I.** (a) Advanced techniques in printmaking to include intense work in color printing. Not for graduate credit. Prerequisite: 301, 6 hours. (b) Individual research with emphasis on history, processes, and ideas which lead to the formation of personal content. Not for graduate credit. Prerequisite: 402a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 402b. (d) Independent study in printmaking. Prerequisite: for undergraduates, 402b; for graduates, consent of major adviser. Studio fee: for a, b, and d, \$10 per credit hour enrolled. Incidental expenses may exceed \$50 for each section.

**403-3 to 30 (6, 6, 3, 3 to 15) Advanced Sculpture I.** (a) Foundry techniques and direct metal fabrication. Not for graduate credit. Prerequisite: 303a, b. (b) Individual research with emphasis on history, materials, processes, and ideas that form personal content. Not for graduate credit. Prerequisite: 403a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 403b. (d) Independent study in sculpture. Prerequisite: for undergraduates, 403b; for graduates, consent of major adviser. Incidental expenses may exceed \$75 for each section.

**404-3 to 27 (3, 6, 3, 3 to 15) Advanced Ceramics I.** (a) Assigned individual problems with emphasis on ceramic form and glazing. Not for graduate credit. Prerequisite: 304, 6 hours. (b) Individual research with emphasis on kiln theory and design. Not for graduate credit. Prerequisite: 404a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 404b. (d) Independent study in ceramics. Prerequisite: for undergraduates, 404b; for graduates, consent of major adviser. Studio fee: for a, b, and d, \$24 to \$48 per credit hour enrolled. Incidental expenses may exceed \$20 for each section.

**405-3 to 27 (3, 6, 3, 3 to 15) Advanced Metalsmithing.** (a) Emphasis will be placed on advanced processes to develop individual expression. Not for graduate credit. Prerequisite: 305a, b. (b) Media exploration to develop individual styles. Not for graduate credit. Prerequisite: 405a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 405b. (d) Independent study in metalsmithing. Prerequisite: for undergraduates, 405b; for graduates, consent of major adviser. Studio fee: for a, b, and d, \$8 per credit hour enrolled. Incidental expenses may exceed \$75 for each section.



**406-3 to 27 (3, 6, 3, 3 to 15) Advanced Fibers I.** (a) Individual design problems. Not for graduate credit. Prerequisite: 306b. (b) Individual research with emphasis on the intensive use of fibers as a creative medium. Not for graduate credit. Prerequisite: 406a. (c) Senior seminar and exhibition. Not for graduate credit. Prerequisite: 406b. (d) Independent study in fibers. Prerequisite: for undergraduates, 406b; for graduates, consent of major adviser. Studio fee for a and b, \$17 per credit hour enrolled; for d, \$15 to \$30 per semester. Incidental expenses may exceed \$75 for each section.

**408-2 to 9 (2 to 3, 2 to 3, 2 to 3) Basic Research in Art Education.** Each student demonstrates via class presentation, term papers, and answers to exam questions, a knowledge of basic research techniques and applications; important literature in the field of art education; broad research meanings; a theory of art education and material on behavioral objectives presented in class and via tape-slide self instruction programs.

**414-3 to 21 Glass I.** A studio course designed for the beginning glass student focusing initially upon basic "flat glass" and coil working techniques and processes. Coursework includes projects intended to familiarize the student with designing and executing products in stained glass. Student will be introduced to forming techniques in glassblowing. Studio fee \$12 per credit hour enrolled. Prerequisite: consent of instructor.

**415-4 A Creative Look at Reclamation Possibilities for Massively Disturbed Land.** Presents the possibility that massively disturbed areas can be aesthetic resources if potential inherent in these sites can be recognized and addressed. Seminar/lecture/studio format with selected lectures given by invited speakers. Discussions include recognition of massive land disturbance; reclamation as a concept; environmental art and design; the questions a potential developer or designer of disturbed land should ask and where they might look for expert advice; and group critiques on student studio projects. Studio projects will involve the visualization in two and three dimension formats of plans for the reclamation of the students' chosen site with accompanying documentation.

**419-3 17th and 18th Century Art.** A survey of art in Europe from ca. 1550 to 1880. Architecture, sculpture, and painting will be presented as well as representative examples of the minor arts where germane to a particular style or area.

**439-3 American Art to World War II.** A selected study of American art from the Colonial period to 1945. Native American and Hispanic cultures will be touched upon. Attention will be given to traditional art forms such as architecture, sculpture, and painting; however, the rich and varied folk art traditions of America will also be explained.

**447-3 Introduction to Museology.** A survey of museum and gallery techniques (emphasis upon practical exhibit development) which will involve answering questions concerning contractual agreements, taxes, insurance, packing, shipping, exhibit design and installation, record systems, general handling, public relations, and sale of art works directed toward problems encountered by the artist outside the privacy of the studio. Prerequisite: art major or consent of instructor.

**449-3 Renaissance Art.** An examination of various topics appropriate to a study of Renaissance art, both Northern and Italian, during the fifteenth and sixteenth centuries in Europe. The emphasis is on a range of art history problems and methods of approach. Field trip required. Prerequisite: 207.

**457-3 Women in the Visual Arts.** (Crosslisted as Women's Studies 427.) Consists of a survey of women's contributions and participation in the visual arts from the middle ages through the Twentieth century. Through lecture, discussion and research, painting, sculpture, architecture, crafts, film, photography, and other forms of visual art will be covered. Screening fee: \$10.

**467-3 Critical Issues in Contemporary Art.** An examination of the style and meaning of contemporary art in relation to the current political, social, and cultural issues. Will include visual arts, architecture, and communications media.

**477-3 American Art of the Thirties.** A socio-political and artistic study of American art during the decade of the Great Depression. Course material will be divided in three parts: (1) a survey of art trends during the Thirties concentrating on traditional art forms such as painting, sculpture, and architecture, (2) an investigation into government-subsized art programs, and (3) recent governmental and corporate patronage of the arts through such programs as the National Endowment.

**497-3 to 6 (3 per topic) Problems in Art History.** A close examination of selected categories of works of art from various periods, media, and cultures as illustrative of particular art historical problems. Topics will vary and include (a) portraiture, (b) landscape and still life, (c) narrative, (d) other selected topics. Sections a through c may be taken only once each, section d may be repeated as topics vary. Art historical perspectives to include formal analysis, iconography, art theory, social history, connoisseurship.

**499-3 to 21 Individual Problems.** Art studio course directed toward individual research in the student's major field. Emphasis is placed upon the history, materials, processes, and ideas that form the content and experience of the student's major field. Designed to adapt to students' individual needs in problem research. Prerequisite: senior standing in the School of Art, a 3.0 average, and consent of instructor.

**500-3 to 21 Advanced Drawing II.**

**501-3 to 21 Advanced Painting II.**

**502-3 to 21 Advanced Printmaking II.**

**503-3 to 21 Advanced Sculpture II.**



504-3 to 21 Advanced Ceramics II.  
 505-3 to 21 Advanced Metalsmithing II.  
 506-3 to 21 Advanced Fibers II.  
 507-3 to 6 (3, 3) Readings in Art History.  
 508-2 to 9 (2 to 3, 2 to 3, 2 to 3) Research in Art Education.  
 514-3 to 21 Glass II.  
 517-3 to 6 (3, 3) Concepts in Art History.  
 518-2 to 9 (2 to 3, 2 to 3, 2 to 3) Seminar in Art Education.  
 599-2 to 6 Thesis.  
 601-1 to 12 per semester Continuing Research.

## Courses in Design

Product Design courses: 102, 103, 201, 202, 252, 312, 313, 362, 406, 412, 413, 462, 463, 464, 465, 494.  
 Visual Communication courses: 102, 254, 300, 304, 322, 342, 372, 373, 405, 406, 422, 472.

Students will be expected to purchase their own materials in some of the courses offered in design.

**102-4 Design Fundamentals.** Dialogue, problems, and experimentation are used to illuminate the creative problem-solving processes and fundamental cognitive skills of the designer. The individual engages in a variety of projects dealing with such subjects as visual communications, environmental planning, structures, and product design.

**103-3 The Way Things Work.** A study of various contemporary artifacts designed for our environment and how they work. This course will not be a technical course but a general overview of these artifacts and how they perform the functions they were designed for.

**201-3 Survey of Design.** A critical study of a design field from prehistoric periods to the modern era with reference to the social, political, and technological movement which affected their development.

**202-3 Basic Materials and Processes.** Introduction to tools and skills used in the manipulation of wood, metal, and plastics. Emphasis is placed on projects selected by the students to enhance their ability to solve problems in terms of specified materials and processes.

**252-3 Human Factors.** An introduction to basic human-machine concepts specifically oriented to design students. Subjects include sensory and motor processes, space and arrangement, and environmental factors in design.

**254-3 Introduction to Graphic Arts Photography.** This course is divided into two parts: an exploration into the techniques of three dimensional model making as a communication and research tool; and an introduction to the basic techniques of photographic image generation, experimentation in photographic techniques and materials, and transmission of ideas through the photographic image.

**300-3 Graphic Reproduction.** Exploration of the various techniques and methods utilized by the designer in preparing communication messages for production. Coursework will deal in such topics as paste-up, keyline, scaling photography, cold type and photocomposition, typography, and offset duplication.

**304-3 Type as Image.** An introduction to the field of reprographics, reproduction of images by means of office copying and duplicating equipment. Coursework will include an examination of the processes available, a survey of the equipment and methods, and graphic standards and techniques that can be utilized.

**312-3 Product Design Analysis.** An introduction to product evaluation techniques, such as human engineering, consumer safety, environmental impact, design liability, and patent protection.

**313-3 Materials and Methods I.** Exploration of methods, tools, and materials for developmental prototyping.

**322-3 Visual Communication I.** Introduction to visual communication, including exploration of words, images, and symbols. Experimentation with graphic techniques and processes. Emphasis on solving basic visual communication problems. Prerequisite: 304, Art 100a and 107.

**342-3 Introduction to Computer Graphics.** Introduction to the use of the computer in the production of graphic images. Topics include the definition of two- and three-dimensional data, the generation of engineering and perspective images, and animation. Prerequisite: Computer Science 202.

**362-3 Product Development.** Investigation and identification of significant product related human need areas. Application of development methodologies in selected product design projects.

**372-3 Visual Communication II.** An investigation of the theories and methods of visually communicating concepts and information. Emphasis is placed on the analysis of the communications need and progresses through the production of items in prototype form. Prerequisite: 102, 254 or concurrent enrollment, 322 or consent of chairperson.

**373-3 Serigraphy.** Introduction to serigraphy (silk screen printing) as a tool of visual communication. The course will be especially useful in providing the graphic reproductive capability for testing designs made in other classes. Various kinds of stencils will be explored: photographic as well as hand made. Prerequisite: 254.



**405-3 Environmental Graphics.** An introduction to the theory and practice of designing meaningful symbols for the public environment, including spatial perception and typography as related to signage systems, imagery, symbols, color, and light. Not for graduate credit.

**406-3 Portfolio.** An investigation and implementation of the planning, production and management of interface information such as resume and presentation of self and portfolio. Not for graduate credit. Prerequisite: senior standing.

**412-3 Practicum in Product Design.** Advanced comprehensive product design projects developed into production prototypes. Not for graduate credit.

**413-3 Professional Practice in Product Design.** The study of designer/client relationships, business practices, design office procedures, and professional ethics. Prerequisite: senior standing or consent of instructor.

**422-3 Visual Communication III.** Principles of visual message making and investigation of symbols as they are used in communication. Study includes the development of contemporary communication techniques including photographics, topography, color, and illustration as well as learning to identify techniques and processes of communication. Not for graduate credit. Prerequisite: 372.

**450-1 to 6 Internship.** Supervised work experience related to student's academic program and career objectives. Not repeatable for credit. Not for graduate credit. Prerequisite: consent of chairperson. Mandatory Pass/Fail.

**462-4 Research in Product Design.** An in-depth investigation and exploitation of a selected production material (plywood, sheet metal, plastic sheeting, etc.). Prerequisite: senior standing or consent of instructor.

**463-4 Products for Special Populations.** Products for special subset groups within greater population norms. May be of cross-cultural and interdisciplinary implementation. Not for graduate credit.

**464-4 Environmentally-Integrated Products.** Development of products integral to comprehensive environmental planning. Not for graduate credit.

**465-2 to 4 Independent Study in Product Design.** Creative project developed by student and faculty sponsor and approved by director. Prerequisite: 462.

**472-3 Visual Communication IV.** Advanced problems in visual communication: the development of a corporate identity. Assigned projects simulate design studio procedures for solving contemporary visual identity problems. Prerequisite: 422.

**494-3 Senior Thesis.** Creative project development individualized by the student with the faculty sponsor. Not for graduate credit. Prerequisite: senior standing.

## Asian Studies (Minor)

The Asian studies program includes a variety of courses of the languages, civilizations, and contemporary issues of Asia. The program is intended to prepare a student for a number of career options with Asia interests. Through this program, a student may prepare for more advanced work on another campus, may develop a teaching specialty, or may broaden skills and knowledge which would be useful for professional and occupational interests in Asia.

A minor in Asian studies requires a minimum of 20 hours selected from a list of approved courses. Not more than eight hours may be taken in any one department for credit toward the 20 hours.

A student may major in Asian studies by means of the special major program of the University for the Bachelor of Arts degree. The student in this program has to meet University, General Education, and the College of Liberal Arts requirements. The student's special major will not be approved unless at least 30 hours selected from a list of approved courses with at least three disciplines included are completed. Students interested in this program are encouraged to take at least two years of an Asian language.

## Associate Degree Nursing (Program, Major [Nursing], Courses)

The associate degree nursing program, offered through the Southern Illinois Collegiate Common Market, is developed as an open-curriculum model and is designed to provide career mobility for persons who have completed a practical nursing program or its equivalency through formal or informal methods. Stu-

dents will be given an opportunity to validate past experiences through utilization of a comprehensive testing program.

Facilities limit enrollment to twelve full-time students, but since each student has different proficiencies, there is a possibility of openings during the academic year as students complete requirements. In addition to gaining admission to the University, the applicant must demonstrate satisfactory levels of previous nursing skills and knowledge by taking the Psychological Corporation Pre-Entrance Examination for Schools of Nursing and Nursing Achievement Examinations. Requests for information should be directed to nursing, School of Technical Careers.

After assessment by the nursing faculty, an individualized prescriptive-type educational program will be developed with each student. Didactic instruction will be implemented mainly through a variety of multi-media teaching techniques with individualized assistance from the nursing faculty. Clinical experience will be gained through various cooperating hospital facilities in a designated geographical area of southern Illinois. Since the students will be traveling to several hospitals, it is essential that they have access to transportation. General education courses will be required in the areas of communication, sciences, and social studies. The nursing courses follow a unique calendar, consequently the student's schedule will extend beyond the normal semester periods.

Additional expenses of approximately \$500 are required to cover textbooks, the cost of uniforms, the pre-admission examinations, liability insurance, workshops, and other items.

This program is designed to prepare the student for the practice of nursing as defined in the Illinois Nurse Practice Act and meets the requirements for accredited schools in associate degree nursing in Illinois.

Upon satisfactory completion of the program the student will be eligible to write the National Council Licensure Examination (NCLEX-RN) and to become a registered nurse. A registered nurse may be employed in private offices, school systems, hospitals and clinics, nursing homes, industrial health clinics, or other health care facilities.

**Associate in Applied Science Degree, School of Technical Careers**

*Requirement for Major in Nursing*

Graduation from an accredited school of practical nursing or equivalent – minimum required transfer of credit .....	20
General Education: GE-A 106, GE-B 202, GE-D 101, 153, and an approved physiology course .....	15
Associate Degree Nursing 201, 202, 203, 204, 206, 208, 209, 210, 211, 212, 213, 214.....	30
<i>Total</i> .....	65

**Courses**

**201-3 Introduction to Conceptual Framework.** Using the individualized modular approach to education, this course introduces the student to the concepts which are the foundation of the nursing curriculum. Emphasis is placed on the exploration and study of basic human needs and the components of the nursing process. Learning opportunities include both theory content and selected clinical experiences. The student must exhibit competencies in practical nursing clinical skills to pass the course and proceed through the nursing curriculum. Material fee: \$20. Prerequisite: acceptance into the associate degree nursing program.

**202-2 Maternal-Neonate Nursing Interventions.** This course is designed to provide the student with greater depth and broader perspectives of the antepartal, intrapartal, and postpartal neonatal periods. A basic understanding of normal reproductive function and birth process will be necessary in order to study the nursing care of pathophysiological conditions. Emphasis is placed upon the family involvement and cultural needs of the child bearing family. Learning opportunities include both theory and selected clinical experiences.

**203-3 Psychiatric Nursing Interventions.** This course is designed to provide the student with further exploration and study into the concepts of mental health and mental illness. Emphasis will be placed on developing skills in therapeutic communication techniques, principles of psychiatric



nursing, interpersonal relationships, and identifying psychosocial needs of the emotionally ill patient. Learning opportunities include both theory content and selected clinical experiences.

**204-2 Neurological Sensory Nursing Interventions.** This course is designed to further the student's knowledge of neurological and sensory function and those associated disorders commonly encountered in nursing practice. Emphasis will be placed on the development of neurological assessment skills and the use of the nursing process for care of patients with major neurological and sensory dysfunction. Learning opportunities include both theory content and selected clinical experiences.

**206-3 Orthopedic-Dermatological Nursing Interventions.** This course is designed to further the student's knowledge of skeletal, muscular, and skin function and those disorders commonly encountered in nursing practice. Emphasis will be placed on assessing, analyzing, planning, implementing, and evaluating nursing care for those patients experiencing disorders associated with joints, bones, muscles, and skin. Learning opportunities include both theory content and selected clinical experiences.

**208-2 Metabolic-Endocrine Nursing Interventions.** This course is designed to further the student's knowledge in metabolic-endocrine function and those associated disorders commonly encountered in nursing practice. Emphasis will be placed on application of the nursing process in caring for patients experiencing metabolic-endocrine dysfunction. Learning opportunities include both theory content and selected clinical experiences.

**209-2 Community Health Nursing.** This course is designed to introduce the student to concepts in community health nursing. The student will learn that the health and well-being of citizens in the community is an integral part of nursing. The problem-solving approach will be applied to identify health problems of clients in a variety of community clinical agencies and settings with special emphasis on community resources for special health problems, communicable diseases, problems accompanying disasters, and special problems of senior citizens.

**210-3 Cardiovascular Nursing Interventions.** This course is designed to provide the student with further study and depth into cardiovascular function and common pathophysiological processes. Emphasis will be placed on the application of the nursing process, health maintenance, and disease prevention. Learning opportunities include both theory content and selected clinical experiences. Material fee: \$10.

**211-2 Respiratory Nursing Interventions.** This course is designed to provide the student with further study of pulmonary function and principles of pathophysiology pertaining to common respiratory problems. Emphasis will be placed on the application of the nursing process in caring for patients experiencing respiratory restriction or obstruction. Learning opportunities include both theory content and selected clinical experiences.

**212-3 Gastrointestinal/Genital-Urinary Nursing.** This course is designed to provide the student with further study and depth into gastrointestinal and genital-urinary function and into their associated pathophysiological processes. Emphasis will be placed on assessing, analyzing, planning, implementing, and evaluating nursing care for patients with common gastrointestinal and genital-urinary disorders. Learning opportunities include both theory content and selected clinical experiences.

**213-2 Nursing Today and Tomorrow.** Leadership in nursing, transition to the new graduate role, and current issues in nursing are the integral components of this course. Students will be given an opportunity to apply their knowledge and nursing skills in selected observational practical experiences.

**214-3 Pediatric Nursing Interventions.** This course is designed to provide the student with specific aspects of growth and development. The nursing process will be utilized to provide nursing care to meet the physical, intellectual, emotional, and social needs of the pediatric patient. Emphasis will be placed on health promotion, family involvement, and cultural needs of the hospitalized child or adolescent. Learning opportunities include both theory content and selected clinical experiences.

## Athletic Training (Minor)

(SEE PHYSICAL EDUCATION)

## Automotive Technology (Program, Major, Courses)

The fundamental objective of the automotive technology program at the School of Technical Careers is to provide students with an opportunity to obtain a solid foundation of knowledge, experience, and skills that will assist in job entry and career advancement in automotive service.

The automotive service industry has seen, and will continue to experience,

rapid changes in technology. Perhaps the greatest changes will occur within the next decade as more fuel-efficient, less polluting motor vehicles become more commonplace. To service the vehicles of today and the future will require highly skilled service technicians who are knowledgeable and skilled in the recently-developed technologies that have been unknown until just a few years ago. The skills that will be required will be varied and complex and will require service technicians to specialize in certain specific service areas. This program recognizes the various needs of the industry and the needs of its future technicians and will offer an opportunity to obtain a basic foundation of knowledge and skills and provide flexibility for a student to develop a specialty of the student's choosing.

Instruction is geared to a thorough presentation of basic fundamental concepts and reinforced with practical applications of those concepts with structured laboratory activities, service and diagnosis of live automobiles. In most cases, instruction will be on operational units and dynamic testing of the units is an integral part of the course.

### **Associate Degree**

During the first year, each student will be required to enroll in a series of core courses which will provide the student with the opportunity to obtain and develop those skills and technical information considered essential to all service technicians.

During the second year, the student may choose in four of eight possible areas. This permits the student to select courses that will assist in developing the chosen career option. After completing this course work plus the general education requirements, the student will be eligible for the associate degree.

An advisory committee composed of leaders in the field provide additional guidance to the program. Current members include representatives from General Motors Corporation, Ford Motor Company, Chrysler Corporation, American Motors Corporation, automobile dealerships, county garages, and wholesale/retail outlets. The student should expect to spend about \$500 for a basic tool kit consisting of both domestic and metric tools and supplies.

The associate degree can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-instructional educational experience.

### **Other Programs**

*Third Year Offerings.* Any student who has successfully completed the Associate in Applied Science degree with a major in automotive technology either at Southern Illinois University, a community college, or other accredited postsecondary institution, may continue advanced technical automotive studies at the post-associate level. The junior level automotive courses may also be applied toward a bachelor's degree, provided other degree requirements have been completed. The student may select advanced courses in automotive electronics or in automotive power trains.

*Bachelor's Degree.* Graduates with the Associate in Applied Science degree with a major in automotive technology may continue their study toward a bachelor's degree. The bachelor's programs usually require an additional two or more years of study beyond the associate degree. The graduates may pursue the Bachelor of Science degree in the School of Technical Careers with a major in career development in an individualized program designed for those interested in technical/management positions in the automotive industry. The graduates may also pursue the Bachelor of Science degree in the College of Education with a major in vocational education studies in a teacher training program designed to prepare students as automotive instructors.



*General Motors Automotive Service Educational Program.* A cooperative work/study program is offered among General Motors Corporation, its participating dealers, and the School of Technical Careers automotive technology program. This associate degree program is two calendar years in length. The final selection of participants is determined by the corporation and its dealers.

*Oldsmobile Cooperative Program.* A cooperative work/study program is offered between Oldsmobile Division, its participating dealers, and the School of Technical Careers automotive technology program. This program is five calendar years in length and leads to both the Associate in Applied Science degree with a major in automotive technology and a Bachelor of Science with a major in career development. Candidates for this program are selected each year by Oldsmobile from the students enrolled in the associate degree program.

**Associate in Applied Science Degree, School of Technical Careers**

*Requirements for Major in Automotive Technology*

GE-B .....	3
GE-D 101 and 153 .....	6
School of Technical Careers 102, 105a, 107a, b .....	8
Automotive Technology 101, 103, 105, 107, 115, 121, 123, 125, 127 .....	32
Thirty hours of selected 200-level Automotive Technology courses .....	30
<b>Total</b> .....	<b>79</b>

**Courses**

**101-4.5 Automotive Engine and Fuel System Laboratory.** Enables the student to acquire knowledge of fundamental service techniques and procedures required to service current automotive engines through actual hands-on experience on laboratory engines. The student will disassemble an engine using approved procedures, inspect and measure for wear and damage, investigate design features, and reassemble the engine to operating condition. The student will investigate numerous diagnosis procedures used in determining an engine's mechanical condition prior to disassembly. The student will also be given instruction in the area of adjustment, repair, infra-red testing of the carburetor and emission control devices. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 121.

**103-4.5 Brakes and Chassis Laboratory.** Designed to provide the student with work experience performing various chassis, suspension, and brake services on live vehicles. Complete brake overhaul, front end rebuilding, wheel alignment, and wheel balancing are some of the tasks performed. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 123.

**105-4.5 Engine Electrical Laboratory.** Allows the student to apply the fundamental theories of electricity/electronics to the actual diagnosis and testing of the battery, charging, starting, and ignition systems. Hands-on experience on live and laboratory units is part of this course. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 125.

**107-4.5 Drive Trains Laboratory.** Provides the student an opportunity to acquire modern technical skills necessary to service and rebuild drive line components. Course includes servicing, rebuilding, and adjusting rear drive axle assemblies, clutch assemblies, manual three-, four-, and five-speed transmissions, single and double cardan universal joints, drive shaft and drive line angles, torqueflight automatic transmissions, manual and torqueflight transaxles, and front drive axle assemblies. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 127.

**115-2 Related Shop Laboratory.** Provides the student with an opportunity to learn and perform routine service operations and small repairs that are required of all automotive service personnel. Such topics as thread repairs, fasteners, drill sharpening, broken stud removal, copper and brass fitting identification and fabrication, and basic acetylene welding and brazing are examples of some of the course content. Theory-laboratory will be four clock-hours per week for eight weeks.

**121-3 Automotive Engine and Fuel Systems Theory.** Explanation of the theory of operation and design characteristics of the four-stroke cycle gasoline engine as well as the basic automotive fuel system and emission control systems. The different engine designs, factors affecting combustion, compression systems, valve trains, crankshaft and bearings, cooling systems, and systems used to control engine emissions of NOx, HC, and CO2 are examples of topics studied. Theory will be six clock hours per week for eight weeks. Concurrent enrollment in 101.



**123-3 Brakes and Chassis Theory.** Provides instruction in the physical laws of hydraulics and pneumatics and their application to the modern brake and steering systems. Included is the study of steering geometry and suspension service procedures. Also covered is brake diagnosis and repair, brake machining, and power brakes. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 103.

**125-3 Engine Electrical Theory.** Provides the student with an opportunity to learn the fundamental theories of electricity/electronics and to apply these fundamentals in the operation of batteries, cranking motors, solenoids, relays, alternators, generators, regulators, and ignition systems. Special emphasis is placed on meter use and sound diagnostic procedures. Theory will be six clock hours per week for eight weeks. Prerequisite: concurrent enrollment in 105.

**127-3 Drive Trains Theory.** Provides the student the opportunity to learn the basic concepts of component design, theory of operation, and diagnosis of the modern drive line. Topics studied include rear axle assemblies, manual three-, four-, and five-speed transmissions, clutch and clutch components, propeller shafts, universal joints, manual and automatic transaxles, planetary gear sets, fluid couplings, and also complete rebuilding procedures and theory of a basic three-speed automatic transmission. Theory will be six clock hours per week. Prerequisite: concurrent enrollment in 107.

**201-4.5 Automatic Transmission Laboratory.** Permits the student to acquire practical experience in the latest diagnostic and service techniques required of current automatic transmissions. Customer vehicles along with laboratory units will be utilized in instruction on the proper diagnosis, disassembly, inspection, and reassembly, along with dynamic testing on a transmission dynamometer. Automatic transmissions covered include rear wheel drive, transaxles, and overdrive transmissions. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 107, 121, 127, and concurrent enrollment in 221.

**203-4.5 Automotive Body and Chassis Electrical Laboratory.** Assists the student in developing a comprehensive understanding of the diagnostic and repair procedures required of the various body and chassis electrical systems, accessories, and comfort options commonly found in current production automobiles. The use of diagnostic test equipment in the solution of real problems on live automobiles will be emphasized. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 223.

**204-4.5 Automotive Air Conditioning Laboratory.** Provides the student with an opportunity to obtain practical experience in the actual service and diagnostic procedures required of all current air conditioning systems. Service activities presented will consist of all operations required of the refrigeration system including compressor rebuilding and the diagnosis and repair of factory-equipped systems. Laboratory will be 14 clock hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 224.

**205-4.5 Electronic Fuel and Emission Controls Laboratory.** Enables the student to study correct testing and diagnostic methods for current fuel and emission control system components. Laboratory exercises will include repair of live automobiles as well as detailed studies in the operation of components and systems on laboratory vehicles. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, 209, 229, and concurrent enrollment in 225.

**207-4.5 Brakes and Suspension Systems Laboratory.** Provides the student an opportunity to learn the techniques in servicing the latest production braking and suspension systems using computerized equipment. Students will receive instruction in wheel balancing, four-wheel alignment, power assist rack and pinion steering gears. Automatic load leveling devices and air suspension will also be included. The MacPherson strut and conventional front suspension designs including front drive configurations will be serviced. Brake system service will include electronic power brakes, hydro-boost, and vacuum assist units. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 227.

**208-4.5 Engine Rebuilding Laboratory.** Allows the student the opportunity to develop skills and service techniques that are considered essential to perform quality engine rebuilding. Service operations such as valve refacing, cylinder head, engine block, crankshaft, rod, and piston reconditioning are examples of activities that will be performed. Diagnosis of engine mechanical failures and noises will also be emphasized. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 121, 105, 125, and concurrent enrollment in 228.

**209-4.5 Engine Electronics Laboratory.** Provides the opportunity to perform the approved procedures for diagnosis and repair of various engine electrical problems. Includes diagnosis of electronic ignition, electronic feed-back, charging and starting systems. Experience in the use of electronic diagnostic equipment will be provided on live vehicles and laboratory units. Laboratory will be fourteen clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, and concurrent enrollment in 229.

**210-4.5 Diesel Fuel and Electrical Systems Laboratory.** Enables the student to learn the fundamental service techniques and procedures required to diagnose and service current automotive diesel fuel injection and electrical systems. The student will diagnose and disassemble diesel fuel injection components, inspect for wear or damage, and reassemble to operating condition. The diagnosis and repair of automotive diesel glow plug systems will be presented including thermal-mechanical and electronic controlled systems. Prerequisite: 101, 105, 121, 125 and concurrent enrollment in 230.

**219-1 to 24 Automotive Cooperative Work Experience.** The student will apply knowledge



and skills learned in the classroom to on-the-job situations. Work experience may be completed in dealerships, independent repair centers, or with the automotive manufacturers. Prerequisite: major in automotive technology and consent of program coordinator.

**221-3 Automatic Transmission Theory.** Deals with automatic transmission torque converters, planetary gear sets, hydraulic clutch units, and hydraulic controls. The transmissions presented will include rear wheel drive, transaxles, and overdrive transmissions. Emphasis will be placed on theory of operation and current diagnostic procedures. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 107, 121, 127, and concurrent enrollment in 201.

**223-3 Automotive Body and Chassis Electrical Theory.** Allows the student to obtain a sound understanding of the theory of operation of the various chassis and body electrical systems, components, accessories, and popular comfort options. Examples of the units studied are body lighting and signal systems, dash instrumentation, windshield wiper and washer systems, cruise control, power windows and tailgates, power seat systems, and power door locks. Assisting the student in interpreting electrical wiring diagrams will be emphasized. Theory will be six clock hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 203.

**224-3 Automotive Air Conditioning Theory.** Allows the student to obtain in-depth instruction in the fundamental principles of refrigeration systems which are applicable to all current systems, plus the theory of operation of the various controls used on factory installed units. Such topics as the refrigeration cycle, temperature regulation, anti-frost controls, and air conditioning systems testing are examples of the material studied. Theory will be six clock hours per week for eight weeks. Prerequisite: 105, 125, and concurrent enrollment in 204.

**225-3 Electronic Fuel and Emission Controls Theory.** A study of automotive fuel and emission controls with particular emphasis on microprocessor controls systems. Principles of carburetion, fuel injection, and the operational theory of current emission control devices will be covered in detail. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, 209, 229, and concurrent enrollment in 205.

**227-3 Brakes and Suspension Systems Theory.** Provides the student with the introduction to computer braking systems and radial tuned suspensions. Other important topics are power rack and pinion steering gear operation and power steering pump service procedures. Also, theory will include MacPherson strut suspension operation and service, four-wheel independent suspension service, automatic load leveling devices, and air suspension operation. Electronic power brake units, hydro-boost, and vacuum brake units will be studied. Theory will be six clock hours per week for eight weeks. Prerequisite: 103, 123, and concurrent enrollment in 207.

**228-3 Engine Rebuilding Theory.** Emphasis will be on factors which determine engine component wear and appropriate service and machining operations to return the engine to manufacturer's specifications. Examples of topics covered are diagnosis procedures, metallurgy and machining processes, cylinder block service, cylinder head and valve train service, lubrication and crankshaft service, gaskets, and sealants, and removal and installation of the engine in the vehicle. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, and concurrent enrollment in 208.

**229-3 Engine Electronics Theory.** Emphasis will be on the basic theories of solid-state electronics as applied in the engine electrical systems. Includes an in-depth study of operational characteristics of transistor ignition, computer engine control, charging, and starting systems. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, and concurrent enrollment in 209.

**230-3 Diesel Fuel and Electrical Systems Theory.** Provides the student with an opportunity to learn the fundamentals of automotive and light truck diesel fuel systems along with the electrical systems unique to the operation of light duty diesel engine. The principles of operation of a diesel engine, diesel combustion, and operation of the fuel injection pump will be presented. The diagnosis of the fuel system and engine performance will be presented along with the study of thermal-mechanical and electronically controlled glow plug systems. The starting, charging, and glow plug systems will be covered dealing specifically with operation and diagnosis. Theory will be six clock hours per week for eight weeks. Prerequisite: 101, 105, 121, 125, and concurrent enrollment in 210.

**301-20 (5, 5, 5, 5) Advanced Studies in Automotive Electronics.** Provides the student with the opportunity for advanced studies in theory, diagnosis, and service of electronic circuitry and computerized controls that are now an integral part of the automobile. The student may choose any of the following areas: (a) electronic engine controls, (b) computer controlled fuel and emission systems, (c) body and chassis electronics, (d) comfort control systems. Emphasis will be on development of advanced technical skills and diagnosis techniques within the subject area. Students will be required to complete a project under the supervision of the sponsoring faculty member. Each area of study will require 20 clock hours of class per week for eight weeks. Prerequisite: AAS degree in automotive technology or consent of program coordinator and required tool set.

**302-20 (5, 5, 5, 5) Advanced Studies in Automotive Power Trains.** Allows the student to gain practical experience in the latest diagnosis and service techniques required of the new and emerging technologies that constitute the modern automobile design. The student may choose any of the following areas: (a) engine machining techniques, (b) diesel fuel injection service, (c) conventional and front wheel drive transmissions, (d) uni-body and front wheel suspension and brake systems. Emphasis will be on the development of advanced technical skills within the subject area. Students will be required to complete a project under the supervision of the sponsoring faculty mem-

ber. Each area of study will require 20 clock hours of class per week for eight weeks. Prerequisite: AAS degree in automotive technology or consent of program coordinator and required tool set.

## Aviation Flight (Program, Major, Courses)

The aviation flight program includes flight courses through the commercial pilot certificate and the instrument pilot rating. To insure the student more mobility and flexibility during employment, the flight instructor certificate and multi-engine rating courses will be included in the program. Flight theory courses will supplement and complement each flight course. In order to maintain the highest possible standards for flight and ground theory courses, each lesson of every course has been submitted and approved by the Federal Aviation Administration. In addition, every graduate of the flight courses will go through a rigorous oral and flight examination administered by an FAA designated examiner before being issued a pilot's license or certificate. Also, general education and basic science courses will be supplemented with related technical courses to enhance the student's professional value to the aviation industry.

The program has an advisory committee formed from among industry and community leaders. The advisory committee has the following functions: 1) assist in developing policy relative to the program, which includes performance measures in the review and evaluation of the program; 2) analyze labor market and industry needs relative to program intake and output; 3) communicate between industry and the program; 4) assist in conducting activities designed to assist the community as it relates to the program. In addition, FAA designated examiners will examine the student's performance and effectiveness at least four times during the course of the program.

### Associate In Applied Science Degree, School Of Technical Careers

#### *Requirements for Major in Aviation Flight*

GE-A 330, GE-B 212, GE-D 101, GE-D 153, Mathematics 111, Physics 203a, and School of Technical Careers 102 .....	22
Aviation Flight 200, 201, 202, 203, 204, 205, 206, 207, 260, 300, 303 .....	25
Avionics Technology 101 .....	3
Electronics Technology 100 .....	3
Nine hours of electives selected from: GE-A 106, GE-A, GE-B, or GE-C 221, GE-B 202, GE-C 208, Economics 214 .....	9
<b>Total</b> .....	<b>62</b>

#### **Minor**

The minor in aviation flight includes flight courses through the commercial pilot certificate and the instrument rating. Currently, students from twenty different majors are involved in flight training courses to enhance their career opportunities and marketability.

#### *Requirements for Minor in Aviation Flight*

Aviation Flight 200, 201, 202, 203, 204, 205, 206 .....	15
GE-A 330 .....	3
One of the following: Advanced Technical Studies 370, 371, 372, 373, 374, 375, 376 .....	3
<b>Total</b> .....	<b>21</b>

#### **Courses**

**200-3 Primary Flight Theory.** Prepares the beginning aviation student for the FAA Private Pilot Written Examination. Consists of instruction in aerodynamics, FAA regulations, primary navigation, use of computer, weather, and radio navigation.



**201-2 Flight – Primary.** Prepares the beginning student in flight to pass the practical examination (flight test) for the Private Pilot Certificate. Consists of 49 hours of flight training, which includes 30 hours of dual flight instruction, five of which is in a simulator; and 19 hours of solo flight. Each training flight is also preceded by a briefing by the instructor and a postflight critique. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport.

**202-2 Flight – Basic and Intermediate Theory.** Continuation of ground school above the primary level. Course consists of 32 hours of classroom instruction in Federal Aviation Regulations pertaining to operations relating to commercial flight, aerodynamics, safety, weather, and the safe operation of aircraft. Prerequisite: 200.

**203-1 Flight – Basic.** Beginning course in preparation for the Commercial Certificate. Course consists of 48 hours of flight training. Includes preflight briefing and postflight critique by the flight instructor. Of the 48 hours, ten hours are dual flights and 38 hours are solo flights. Includes dual night flights and 17 hours of solo cross-country. This course carries substantial charges which may change from time to time. For exact charge contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 201.

**204-1 Flight – Intermediate.** Continuing preparation for the Commercial Certificate. Consists of 48 hours of flight training. Includes preflight and postflight briefing by instructor. Includes 10 hours of dual flight instruction and 38 hours of solo flight. The solo includes 5 of night flight, 15 of solo cross-country, and 18 of solo practice on advanced maneuvers.

**205-2 Flight – Instrument Theory.** Course is directed to the theory of flight by instrument. Consists of thirty-two hours of classroom instruction in Federal Aviation Regulations pertaining to instrument flight, navigation by radio aids, aviation weather and function, use, and limitations of instruments required for instrument flight. Prerequisite: 202.

**206-4 Flight – Instrument and Advanced.** This flight course will complete requirements for the Commercial Certificate, and will consist of 47 hours. Included in the 47 hours are 22 hours of instrument flight instruction in an airplane, 10 hours in an instrument simulator, 10 hours of dual on flight maneuvers, and five hours of solo practice on maneuvers required to pass an FAA commercial flight test. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 203, 204.

**207-1 Flight – Multi-Engine Operations.** Prepares the student for the FAA Multi-Engine Rating (airplane). Includes ten hours of flight training in multi-engine aircraft; and ten hours of individual ground instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 201.

**260-4 Reciprocation and Jet Airplane Systems.** Students will have knowledge of construction, operation, and components of reciprocating and jet powerplants. They will understand the operation and components of cabin pressurization and air conditioning systems, flight control systems, landing gear systems, fuel systems, electrical systems, anti-icing systems, and fire detection systems.

**300-2 Flight-Instructor (Airplane).** Prepares the commercial pilot for an FAA Flight Instructor Certificate. Includes 20 hours of dual flight training and 40 hours of specialized ground instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 206.

**301-1 Flight-Instructor (Airplane-Multi-Engine).** This course consists of five hours of dual flight instruction and 10 hours of classroom instruction. Prepares the holder of flight instructor certificate for the addition of the multi-engine flight instructor rating. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 300.

**302-1 Flight-Instructor (Airplane Instrument).** Designed to prepare the flight instructor to teach instrument flying, and to acquire the Instrumental Flight Rating. Course consists of ten hours of dual flight instruction and 15 hours of classroom instruction. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Prerequisite: 300.

**303-3 Flight Instructor Ground School.** This course is designed to aid the student who is obtaining a flight instructor's rating. It will cover principles to teaching as well as practical aspects of teaching flight maneuvers necessary for instruction. Prerequisite: 205.

**307-3 Lear Jet Theory and Flight I.** Prepares the advanced flight student for the duties and responsibilities of a Lear jet co-pilot. This course consists of 40 hours of Lear jet theory and systems ground training and 2 hours of inflight training and 4 hours of preflight and postflight ground discussion. Prerequisite: 206, 207.

**308-3 Lear Jet Theory and Flight II.** Prepares the advanced flight student for the duties and responsibilities of Lear jet co-pilot and part of the training required for the Lear jet type rating. This course consists of 40 hours of Lear jet theory and systems ground training and 5 hours of inflight training and 10 hours of preflight and postflight ground discussion. Prerequisite: 206, 207.

**309-4 Lear Jet Theory and Flight III.** Prepares the advanced flight student for the duties and responsibilities of a Lear jet captain and the knowledge and experience for the Lear jet type rating.



This course consists of 40 hours of Lear jet theory, 17 hours of inflight training, and 17 hours of preflight and postflight ground discussion. Prerequisite: 206, 207.

**400-1 Flight-Airline Transport Pilot.** Prepares the commercial pilot for the FAA Airline Transport Pilot Certificate. Includes 40 hours of ground instruction and 20 hours of flight training in single-engine or multi-engine aircraft. This course carries substantial charges which may change from time to time. For exact charges contact the Air Institute and Service, Southern Illinois Airport. Not for graduate credit. Prerequisite: 206.

## Aviation Maintenance Technology (Program, Major, Courses)

Skilled technicians are in demand in the aviation industry, both in airlines and general aviation. The industry demands people who possess a wide range of knowledge and ability provided by general education as well as special technical training.

The student learns reciprocating and jet powerplants, cabin environment and jet transport systems, hydraulics, fuel systems, ignition-starting systems, carburetion and lubricating systems, instruments, and powerplant testing in coordinated classroom and laboratory work. The program is fully accredited by the Federal Aviation Administration. Students who wish to qualify for the FAA airframe and powerplant license are required to take a two-course post-associate specialization.

Instruction is conducted at the Southern Illinois Airport between Carbondale and Murphysboro in a combination laboratory-classroom-hangar facility.

The student should expect to spend about \$360 for a tool kit and special study materials.

Executives in the aviation industry constitute an advisory committee which serves the program. Current members are: Ross K. Bennett, vice president of operations, Hartzog Aviation, Rockford, Illinois; Raoul Castro, Aerospace International Management Systems, Inc., Wheaton, Illinois; H. Erv Chandler, supervisor of training, Bell Helicopter Textron, Fort Worth, Texas; R. Craig Christie, vice president, marketing, King Radio Corporation, Olathe, Kansas; Roy S. Davis, retired director of technical services, Trans World Airlines, Inc., O'Hare International Airport, Chicago, Illinois; Robert J. Graham, supervisor, production control, American Airlines, O'Hare International Airport, Chicago, Illinois; Ira B. Hartzog, president, Hartzog Aviation, Rockford, Illinois; Robert Kopitzke, 747 ground school instructor, American Airlines Flight Academy, Fort Worth, Texas; A. Edward Langhorst, manager, aircraft engine group, Evendale Technical Training School, General Electric Company, Cincinnati, Ohio; George Powell, director of product support, Bell Helicopter Textron, Fort Worth, Texas.

### Associate in Applied Science Degree, School of Technical Careers

#### *Requirements for Major in Aviation Maintenance Technology*

GE-D 101, 118, 152 .....	8
School of Technical Careers 105a .....	2
Aviation Maintenance Technology 110, 111, 112, 113, 114, 116, 201, 203, 204, 205, 206, 210, 211, 212, 213, 214, 215, 216 .....	67
Elective (in social science) .....	5
<i>Total</i> .....	82

### Courses

**110-4 Aircraft Structure-Fabrication and Repair.** Students will be able to identify and select materials employed in aircraft construction. Using appropriate FAR's, they will demonstrate competence in repair of honeycomb, fiberglass, welded, wood, or fabric aircraft members. The student will inspect aircraft members for defects and, if necessary, inspect completed repairs for airworthy condition.

**111-4 Materials Processing.** Students will be able to identify, select, and inspect aircraft hardware and materials. They will be able to select and apply appropriate cleaning materials and to



implement corrosion controls. They will become proficient in the use of precision measurement equipment and related inspection tools.

**112-4 Aircraft Electricity.** Students will have basic knowledge of electricity generation, AC and DC circuitries, and controls. They will be able to solve problems associated with electrical measurement (AC and DC), circuit interpretations and inspection, aircraft electrical load analysis, circuit malfunctions, and circuit or component servicing. They will have as an introduction, a basic knowledge of aircraft electronics.

**113-2 Federal Aviation Regulations.** Students will be able to select and use FAA technical and legal publications in order to perform the duties of an aircraft technician.

**114-2 Aircraft Weight and Balance.** Students will fully understand and solve problems of aircraft weight and balance. They will be able to perform weighing, computation of C.G., and establishing of equipment list.

**116-3 Aircraft Instruments.** Students will have a knowledge of operation, installation, marking, and interpretation of synchro and servo systems, aircraft and powerplant instruments. They will be able to install, adjust, and calibrate these instruments in accordance with FAA and manufacturers' recommendations.

**201-2 Applied Science.** Students will be able to apply and use the principles of applied science to describe the behavior of an aircraft powerplant, aircraft aerodynamics, strength and mechanical advantage of systems, including hydraulic, cabin environmental, carburetion, instrumentation. They will understand the application of aircraft finishing, both enamel, lacquer, and dope and fabric coverings, and understand the safety procedures to safely operate aircraft and powerplants for ground operational checks and servicing.

**203-2 Aircraft Aerodynamics.** Students will have a knowledge of flight theory and factors affecting aircraft in flight. They will explain and compare aircraft design features in subsonic, transonic, and supersonic aircraft. They will be able to assemble and rig various aircraft control systems, analyzing and correcting faulty flight characteristics.

**204-4 Hydraulics (Aircraft).** Students will have a knowledge of fluid theory and applied physics which relates to aircraft hydraulics. They will know the theory of operation, maintenance requirements, and adjustments of various hydraulic components and systems. They will be able to test, inspect, troubleshoot, and service hydraulic systems and overhaul malfunctioning components in accordance with FAA and manufacturers specifications.

**205-6 Cabin Environment and Jet Transport Systems.** Students will understand the atmospheric variables at different altitudes and the basic equipment required to cope with malfunction in the cabin pressurization and air-conditioning systems. Using the available information, jet transport aircraft and simulated training panels, they will understand the operation of and be able to identify the components of flight control systems, landing gear, fuel, anti-icing, and fire detection systems. They will be able to compare and analyze aircraft systems of current jet transport aircraft and to diagnose and resolve malfunction problems. They will have knowledge of procedures for aircraft and to diagnose and resolve malfunction problems. They will have knowledge of procedures for aircraft ground handling, APU operation, and system servicing.

**206-3 Metals Processing.** Students will be able to make appropriate sheet metal repairs using correct repair procedures, tools, and materials. They will be required to demonstrate correct use of and interpretation of structural repair diagrams and correct interpretation of charts and tables from AC 43.13-1A pertaining to materials and methods.

**210-2 Aircraft Electrical Systems.** The successful student should have a knowledge of the operation, repair, inspection, and service of small and large aircraft electrical systems, using schematic diagrams and training panels.

**211-5 Reciprocating Powerplant.** Students will have a knowledge of construction, operation, and timing mechanisms associated with aircraft reciprocating powerplants. They will be able to disassemble, clean, measure, inspect, and reassemble a powerplant to airworthy condition in accordance with appropriate FAA and manufacturers' regulations and practices.

**212-5 Carburetion, Lubrication, and Fuel.** Students will be able to demonstrate their competence in identifying fuel and oil system components and carburetors, understanding the operating principles of each. They will be able to inspect, adjust, troubleshoot, and overhaul these components according to manufacturers and federal regulations. They will be able to identify the grades of aviation fuels and lubricants and understand the characteristics and uses of each.

**213-5 Ignition Systems.** Successful students should have a knowledge of the operation, repair, inspection, and service of reciprocation and jet powerplant ignition systems and reciprocating starting system. They will be able to time, overhaul, and troubleshoot the various components of each system.

**214-3 Propellers.** Students will have a knowledge of the physical laws and design characteristics governing propeller operation. They will be able to identify components, troubleshoot, and adjust fixed and variable pitch propellers. They will maintain fixed pitch propellers, and the governor system for variable pitch propellers in accordance with FAA and manufacturers' standards.

**215-5 Powerplant Testing.** Students will have an understanding of the correct procedures and precautions to be observed during engine installation, ground operation, and fuel and oil servicing. They will be required to inspect and troubleshoot reciprocating and jet engines for airworthy condition and interpret engine instrument readings to diagnose engine malfunctions.



**216-6 Jet Propulsion Powerplant.** Students will be able to apply and understand physics laws related to jet powerplants. They will be able to identify and understand the operation of jet engines and their components. They will be able to perform inspection, maintenance repair, troubleshooting, and adjustments of jet powerplants and accessories. They will be able to analyze engine performance and to interpret operational charts, graphs, and tables.

**225-6 Aircraft Inspection.** Students will be able to perform a 100-hour and an annual inspection of an aircraft. They will demonstrate knowledge of FAR's by checking appropriate AD's, classifying repairs, and pinpointing specific service problems. They will also complete the required maintenance forms, records, and inspection reports required by federal regulations. They will understand and be able to perform inspection under computerized aircraft maintenance programs.

**230-6 Powerplant Inspection.** Students will be able to perform periodic inspection of powerplants. They will demonstrate their knowledge of FAR and application of FAA ADs', Service Bulletins, and proper use of inspection equipment. They will use knowledge learned in the powerplant curriculum to perform malfunction analysis of powerplant and related systems. Live equipment is used on a return-to-service basis.

**301-3 Helicopter Theory and General Maintenance Practice.** The student will have indepth knowledge of rotary wing aerodynamics, main and tail rotor systems, rotor blades, primary and secondary controls, and general maintenance practices to include inspection and nondestructive testing. Lecture three hours. Prerequisite: Federal Aviation Administration Airframe and Powerplant Technician license or consent of program coordinator.

**302-6 Helicopter General Maintenance Laboratory.** The student will perform general maintenance on rotary wing main rotor systems, tail rotor systems, flight and powerplant control systems to include malfunction analysis, tracking, static and dynamic balancing, rigging, and repair. Laboratory six hours. Prerequisite: concurrent enrollment in 301 or consent of program coordinator.

**304-3 Helicopter Power Train and Inspection.** The student will have indepth knowledge of the operation, function, and inspection of all rotational components of a rotary wing aircraft to include transmission, gear boxes, drive trains, and drive shafts. Lecture three hours. Prerequisite: 301 or consent of program coordinator.

**306-6 Helicopter Power Train Laboratory.** The student will perform all functions of overhaul concerned with rotary wing transmissions, gear boxes, and drive trains. The student will demonstrate skill in disassembly, inspection, discrepancy analyzation, reassembly, and non-destructive testing. Laboratory six hours. Prerequisite: concurrent enrollment in 304.

## Aviation Management

(SEE ADVANCED TECHNICAL STUDIES)

## Avionics Technology (Program, Major, Courses)

Avionics, or aircraft electronics, is a rapidly growing field requiring highly skilled technicians for work in the development, installation, and maintenance of the sophisticated avionics systems required for effective utilization of modern day aircraft by the aviation industry.

The avionics technician finds opportunities for employment with the airline industry, general aviation, and in aircraft manufacturing, where employees will install, maintain, test, and repair airborne communications and navigation systems, airborne radar systems, and related equipment.

All instruction is programmed in a balanced combination of classroom lecture and actual "hands on" laboratory experience under the supervision of instructors who have extensive experience and expertise in their respective fields.

The student will have courses in basic direct current, alternating current, electrical power systems, airborne, auxiliary power systems, electrical generation and distribution, load transfer, solid state devices, aircraft communications and navigation systems, instrumentation systems, and aircraft integrated flight systems, receivers, and transceiver pulse and microwave systems, antenna types, wave propagation and transmission lines, and Federal Aviation Administration and Federal Communication Commission regulations.

In addition to regular University tuition and fees, the student is required to purchase basic tool kits and study material at an approximate cost of \$300.



Executives in the aviation industry constitute an advisory committee which serves the program. The current members are listed under aviation maintenance technology and they serve both programs.

This associate degree program can be completed in two academic years at Southern Illinois University at Carbondale.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Avionics Technology\*

GE-D 101, 118, 152 .....	8
School of Technical Careers 105a, b.....	4
Aviation Maintenance Technology 210 .....	2
Avionics Technology 101, 120, 125, 203, 204, 232, 233, 234, 235, 236, 237, 238.....	64
Total.....	78

\*To meet Federal and industry requirements, the student should plan to take additional 300-level courses offered as a post-associate specialty.

Courses

- 101-3 Aircraft Systems.** An introductory course in aviation primarily designed for the student who has little or no background in aviation, but desires to learn about the aircraft and its systems in use today. The course will cover light, heavy, and rotary wing aircraft found in today's civil fleet.
- 120-8 Avionics Circuit Analysis.** The student will have an understanding of the laws and theories of elementary AC and DC circuits as they apply to avionics, as well as a basic understanding of avionic circuit devices. Various basic circuits and individual components will be analyzed from a theoretical and operational standpoint, utilizing both descriptive and analytical approaches. Lecture eight hours. Prerequisite: concurrent enrollment in School of Technical Careers 105a and 105b or consent of program coordinator.
- 125-5 Avionics Laboratory I.** The student will be able to demonstrate and apply the theory studied in 120. Laboratory ten hours. Prerequisite: concurrent enrollment in 120 or consent of program coordinator.
- 203-3 Avionics Shop Practices.** The student will study avionics installation requirements, layout procedures and equipment location. They will understand repair station certification, regulations, records, and certification of repairmen. Lecture three hours.
- 204-3 Avionics Shop Laboratory.** The student will make and follow installation drawings or layouts. They will use the equipment and tools requirement to perform avionics equipment installations. Given a list of avionics equipment, they will make the installation, perform acceptance check on the equipment, and fill out required records. Laboratory six hours. Prerequisite: concurrent enrollment in 203 or consent of program coordinator.
- 232-10 Avionics-Electronic Circuits.** Designed especially for students who have completed the aviation technology program and wish to enter the avionics technology program for a second major. Theory of operation of diode, practical rectifiers, DC to DC converter and airborne audio amplifier system both tube and transistor. Construction of basic avionic circuits and isolation of malfunctioning components. Perform repairs and testing of transistors and tube and tube type of avionic circuitries. Lecture eight hours, laboratory four hours. Prerequisite: Aviation Maintenance Technology 210, Electronics Technology 102, and concurrent enrollment in Avionics Technology 233.
- 233-5 Aircraft Communication and Navigation Systems Theory.** Student will have knowledge of the theory of operation, calibration, and frequency selection of NAY-COM equipment. They will understand transceiver circuitries, closed frequency loop SCR circuits, audio amplifiers, intercom systems, VOR navigation receivers, VOR converter, glide slope receivers, ADF receivers, and marker beacon receivers. They will be able to use avionics manufacturers maintenance and overhaul manuals and FAA regulations. Lecture five hours.
- 234-6 Avionics Laboratory II.** Students will be able to identify systems components. They will be able to operate and calibrate test equipment. They will be able to troubleshoot and repair communication and navigation equipment, and to perform alignment of transceivers, navigation receivers, VOR converter, ADF receivers and marker beacon receivers. They will effectively perform modification and compliance of Service bulletins and FAA Directives. Laboratory twelve hours.
- 235-6 Flight System Theory.** Students will have knowledge of operation and installation of aircraft control, navigation, communication, synchro and servo systems. They will be able to determine if a system meets factory and FAA specifications. They will learn to use technical publications. Lecture six hours.
- 236-5 Avionics Laboratory III.** Students will be able to operate, install, adjust, troubleshoot, and repair automatic pilot, automatic stabilization systems, and integrated flight systems. They will be able to install, adjust, and troubleshoot flux gage compass, gyrosyn directional indicator,

rate gyros, RMI repeater and attitude gyros. They will be able to use technical publications. Laboratory ten hours.

**237-5 Avionics Logic Circuits and Pulse Systems Theory.** Students will be able to analyze the use and operation of logic gates, gate expanders, invertors, flip-flops, shift registers, decade counters and operational amplifiers as used in avionics circuits. They will have knowledge of pulse circuits used in distance measuring equipment and ATC transponders. Lecture, five hours.

**238-5 Avionics Laboratory IV.** Students will be able to locate, identify, troubleshoot, and repair logic circuits used in avionics equipment. They will be able to test, calibrate, troubleshoot, and repair distance measuring equipment and ATC transponders in accordance with manufacturer and FAA Repair Station Guidelines. Laboratory, ten hours.

**302-3 Avionics Laboratory V.** Students will be able to conduct avionics loan analysis and perform weight and balance problems. Given a malfunction in an avionic system on the aircraft, they will be able to locate the faulty component, and to perform necessary repairs and to return equipment to airworthy status. Laboratory 12 hours.

**303-2 FCC Regulations.** The student will have knowledge of FCC requirements for aircraft station licenses, aeronautical ground station and operator's licenses. Lecture 4 hours.

**304-4 Avionics Radar System Theory.** The student will have knowledge of airborne radar system circuits, and understand the theory of operations of radar antenna system. The student will be able to perform installation, system performance check out, circuit adjustment, trouble shooting, and general repair of the airborne radar system.

**320-5 Avionics Flight Line Maintenance.** Students will study basic avionics systems, their components, and learn how to perform flight line preventive maintenance and troubleshooting of the systems to the specific malfunctioned unit. The student will learn how to evaluate avionics system performance as dictated by Federal Aviation Administration Regulations and performance criteria as well as the manufacturer's and flight line system testing procedures for selected avionics systems. For non-avionics majors. Lecture five hours.

**325-4 Avionics Flight Maintenance Laboratory.** Students will demonstrate their understanding of basic avionics systems and system components, and perform flight line preventive maintenance and troubleshooting on selected avionics systems. The student will demonstrate an understanding of the ramp-test criteria of selected avionics systems and the utilization of the appropriate portable test equipment. For non-avionics majors. Laboratory eight hours.

**350-4 Microcomputers for Aviation Professionals.** Students will demonstrate a basic understanding of microcomputer systems and their utilization as related to the aviation industry. The student will demonstrate a working knowledge of the application of commercially available software such as a word processor, electronic spreadsheet, data base management system, and telecommunications software for aviation professional tasks. Lecture/demonstration four hours.

**360-5 Avionics Data Bussing and Electronic Flight Instrument Systems.** Students will study current avionics data bussing, glass cockpit display system concepts, and data multiplexing. The student will demonstrate a basic understanding of the control of the microprocessor using machine, mnemonic (assembly), and ADA software languages. Lecture five hours.

**365-4 Avionics Data Bussing and Electronic Flight Instrument Systems Laboratory.** The student will develop skill in troubleshooting advanced digital, tri-state, buss input/output, CRT display, character generation, and microprocessor buss controller circuits. The student will demonstrate a basic understanding of the control of the microprocessor using machine, mnemonic (assembly), and ADA software languages. Laboratory eight hours.

**370-5 Reliability, Maintainability, Fault Prediction and Analysis.** Students will demonstrate the ability to understand and perform analysis and prediction of the logistical concepts of reliability, maintainability, and fault prediction and analysis of products and systems. A conceptual understanding of logic symbols, fault tree analysis, and fault criticality as well as logistical management. Lecture five hours.

## Biological Sciences (Major)

The biological sciences major consists of courses selected from the Departments of Botany, Microbiology, Physiology, and Zoology. Students selecting biological sciences as their major do not need to take a minor. Besides enrolling in biological sciences courses, students are also required to take courses in chemistry and mathematics. Students should consult their advisers for additional information.

### Bachelor of Arts Degree, College of Science

<i>General Education Requirements</i> .....	45
<i>Supplementary College of Science Requirements</i> .....	9-11
Foreign Languages .....	(4) + 4
Mathematics 108 and 109 or 111 (or its equivalent)	
or 140, or 141 .....	(3) + 1-3



Chemistry 222a,b . . . . .	(4) + 4
Requirements for Biological Sciences . . . . .	40
Physiology 210 . . . . .	5
Biology 305, 306, 307, 308, 309 (any two) . . . . .	6
Botany 200 and 204 . . . . .	8
Microbiology 301, 302 . . . . .	7
Zoology 220 a,b . . . . .	8
Biological sciences electives at 400-level . . . . .	6
Electives . . . . .	24-26
Total . . . . .	120

**Bachelor of Science Degree, College of Education**

Students planning to obtain their degree in the College of Education must satisfy all the requirements of that college. The requirements in biological sciences will be the same as those in the College of Science. Those students desiring to attain a secondary education teaching certificate must also enroll in Curriculum, Instruction, and Media 468. See Teacher Education Program, page 83.

**Minor**

A minor in biological sciences consists of a minimum of 24 hours and may be taken in the College of Education, the College of Liberal Arts, or the College of Science. It must include two of the following biology courses: Biology 305, 306, 307 (6 hours), plus 9 hours selected from the following courses: GE-A 312, Botany 200, 204, Microbiology 301, 302; Physiology 410a,b; and Zoology 220a,b or other courses approved by the director of the undergraduate program in biological sciences. The remaining nine hours may be selected from courses offered by the Departments of Botany, Microbiology, Physiology, and Zoology. A student with a major in one of the life sciences may not take a minor in biological sciences.

**Biology (Courses)**

**Courses**

- 210-2 to 6 Biology Field Studies.** A trip of from two to six weeks to acquaint students with organisms in various environments or with methods of field study, collection, and preservation. Students will incur costs for food, lodging, and transportation. Prerequisite: consent of instructor.
- 305-3 Genetics-Classical and Molecular.** Broad principles of genetics, including Mendelism, chromosomal behavior, genetic mapping and mutation, Allelism, genes and development, polygenic systems, inbreeding and outbreeding, and genetic applications.
- 306-3 Cell Biology.** The basic functions of the cell are considered. The biochemical basis and mechanisms of the cellular processes, the functions of the subcellular structures, and their ramifications will be explored in the context of plant and animal cells.
- 307-3 Principles of Ecology.** Broad principles of ecology on the organismic, the populations, the community, and the ecosystem level. Includes environmental factors, adaptations, energy and material balance, succession, and human ecology.
- 308-3 Organismic Functional Biology.** Fundamental principles and biological examples of basic phenomena characteristic of organisms, including transport, integration, and reproductive systems. Detailed attention will be given to various organ systems with an emphasis on function.
- 309-3 Developmental Biology.** Principles of development; causal mechanisms, cybernetic and phylogenetic aspects. Lecture course.
- 315-2 History of Biology.** The interrelationships between the development of biological knowledge and the history of the human races.

**Black American Studies (Minor, Courses)**

Black American studies is a part of the School of Social Work  
The black American studies program will plan a program for a special major leading to the Bachelor of Science degree in the College of Human Resources. Any

student interested in such a program should consult this catalog for an explanation of the special major, and then contact the academic counselor in black American studies in order to plan and receive approval for the program.

A minor in black American studies consists of a minimum of 20 hours which are to be selected from black American studies course offerings and organized according to each individual student's field of interest. An official minor is subject to approval by the coordinator of black American studies.

## Courses

**109-3 Introduction to Black America.** A survey course designed to expose the student to various aspects of the black experience. Aspects included are history, literature, theology, the arts, etc. The textbook is a collection of essays designed to use especially in this course and is supplemented by guest lecturers and audiovisual materials.

**135-3 The Third World: The African Model.** A study of the Third World through a focus on Africa as a model; emphasis on the cultural traditions, the impact of the West, and the problems facing Third World nations today.

**209-3 Critical Issues in the Black American Experience.** Insights into the black American experience. Concepts including race, ethnicity, class, caste, minorities, prejudice, discrimination will be analyzed. Main focus is on exploration of critical socio-economic, political, and cultural themes such as demographic trends; migration and urbanization, political participation and strategies, income and employment, housing, health, education, black family, black religion, law, and justice. Prerequisite: Black American Studies 109 recommended but not required.

**225-3 Social Change in Africa.** Examination of the interplay between tradition and modernity in an effort to understand the new Africa. Some of the forces of social change are analyzed. Other topics include African women and the family structure in change and the problems of African development.

**230-3 Introduction to Black Sociology.** An introductory course which focuses on the concepts of black sociology in order to fill the gaps of "traditional sociology" pertaining to the black experience. Designed to heighten the student's awareness of the black identity and the sociological phenomena which affect it and acquaints the student with specific sociological problems in the study of Afro-Americans. Prerequisite: Black American Studies 109.

**257-1 Black American Studies Choir.** Prerequisite: consent of instructor.

**311-6 (3, 3) Black American History.** (Same as History 362.) (a) Black American History to 1865; (b) Black American History since 1865. The role of blacks and contribution in the building of America and the ongoing fight for equality.

**314-6 (3, 3) History of Africa.** (Same as History 387a,b). (a) History of Africa. A study of West African peoples from earliest times to the present; including the era of kingdoms; the role of Islam; African-European relations; colonialism; and African nationalism. (b) History of East-Central Africa. A study of East and Central African peoples from earliest times to the present; including migrations and kingdoms; African-Arab-European relations, colonialism, and African nationalism.

**320-3 Leaders of the Black World.** A study of black rulers; governmental representatives; activists; and thinkers; both past and present; in Africa; the West Indies; and the United States, with emphasis on the effects of their philosophies on the black world.

**330-3 Black American Social Problems.** Comparative study of the social problems which afflict black Americans and other minorities and their consequences; including crime and delinquency, mental and emotional disorders, drug addiction, housing conditions, poverty and unemployment, and labor conditions. Prerequisite: consent of instructor.

**332-3 Black Americans and the Law.** Focuses on the effect of the American legal system upon the Afro-American from slavery to the present; uses theory and knowledge from the law, history and sociology; will explain the historical perspectives of specific laws as well as their effect upon the Afro-American.

**333-4 The Black Family.** Exploring the myths and realities of the black family from sociological and psychological perspectives through a critical examination of scholarly controversies and research. Prerequisite: junior standing.

**336-4 The Black Personality.** Examines current areas of interest in the study of the psycho/social characteristics of black Americans. Theoretical and empirical data will be examined. Considers critical issues as cognitive development; self-concept, socialization process and inter- and intra-group relations. Prerequisite: consent of department.

**339-3 Black Americans and the Correctional Process.** Analysis of selected topics: the prison community and the black inmate; correction education and the black inmate; and the black professional. Prerequisite: 332.

**345-3 Law and Civil Liberties.** (See Political Science 332.)

**350-3 Contemporary Black Drama.** Surveys in the works of major and minor writers of contemporary black dramas from *A Raisin in the Sun* to *No Place to Be Somebody*. Explores recent criticism on black theater, and approaches oral and written criticism from the point of view of "black aesthetics." Prerequisite: English 201 or consent of department.



- 355-3 The Black American Novel Since *Native Son*.** The black American novel and its major themes since Richard Wright's *Native Son*. Includes such authors as Baldwin, Petry, Williams, etc. Prerequisite: English 210, English 325, junior standing, or consent of instructor.
- 357-3 Blacks in the Performing Arts.** History of the role of blacks in the performing arts covering dance companies, ballet, folk dance and black dramatists; cinema, in all its forms; radio and television; and music (spirituals, jazz, opera, classics, etc.) Prerequisite: English 325, or consent of department.
- 358-3 Black Theater Workshop.** Designed to train students in the arts of the theater. While major emphasis is placed on acting techniques, opportunities for training in makeup design and oral interpretation are also provided.
- 360-3 Race and History in the United States.** (See History 361.)
- 362-3 The Music of Black Americans.** (See Music 372.)
- 370-3 Bibliography of Black American Studies.** An introductory survey of black American bibliographic resources course, culminating with students' compilation of a selective, annotated bibliography covering some chosen aspect of the black experience. Prerequisite: junior or senior standing or consent of instructor.
- 380-2 Regional Geography of Sub-Saharan Africa.** (See Geography 365.)
- 385-4 Myth and Ritual in Archaic Religion.** (See Religious Studies 333.)
- 391-2 Social Services and Minority Groups.** (See Social Work 391.)
- 395-3 Investigative Procedures and Techniques for the Affirmative Action Officer.** Designed to provide students with the basic skill of investigating equal employment opportunities and affirmative action complaints that might be filed by one who feels discriminated against in the hiring process and upward mobility within an agency. Study and research of existing cases filed with FEPC and EEOC.
- 399-3 to 5 Independent Study in Black American Studies.** Independent study which examines problems and issues not covered in a specific course. Hours and subject matter decided during consultation with a faculty member. Prerequisite: consent of instructor.
- 430-3 Black Political Socialization.** Definitive approach to how people learn about politics focusing on blacks because of their unique experience; i.e., prolonged minority group status. Research oriented, in that, it takes an explanative and predictive approach to produce models of political learning. Not for graduate credit. Prerequisite: 230, junior or senior standing, or consent of department.
- 455-2 to 12 Rehabilitation Services with Special Populations.**
- 465-3 Governments and Politics of Sub-Saharan Africa.** (See Political Science 465.)
- 475-3 Sociological Effects on Black Education.** A teacher-oriented course dealing with up-to-date research in black and minority education. The instructor utilizes the findings of current periodicals to present models for understanding and communicating with black children. Not for graduate credit. Prerequisite: Education 303 or consent of department.
- 480-4 to 8 (4, 4) Seminar in Black Studies.** Analysis of the black experience directed toward practical contribution in the area studied. Topics vary with instructor. May be repeated once for a total of eight credits provided registrations cover different topics. Topics announced in advance. Prerequisite: Black American Studies 109 or consent of department.
- 490-1 to 3 Cross-Cultural Rehabilitation.** (See Rehabilitation 419.) Not for graduate credit.
- 499-1 to 5 Special Readings in Black American Studies.** Supervised readings for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisite: consent of instructor.

## Botany (Department, Major, Courses)

Botany is a broad science that includes many specialties. A major in botany should be considered by those wishing to specialize in teaching and research in the plant sciences and related fields.

Students planning to major in botany should consult with the chairperson of the department for information concerning the programs in the department.

As a general rule, students who intend to apply for admission to a graduate school to study for an advanced degree in botany should include the following in their undergraduate program: inorganic and organic chemistry, mathematics through calculus, a modern European language, and as many botany and biology courses as time and scheduling will permit.

An honors program is available to those juniors and seniors in botany who have an overall grade point average of 3.00 or better and an average in botany courses of 3.25 or better. Honors students should enroll in Botany 492 during some semester in both junior and senior years.

**Bachelor of Arts Degree, College of Science**

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	7-9
Foreign Language .....	(4) + 4
Mathematics 108 and 109 or 111 (or its equivalent), or 140 ..	(3) + 1-3
Physical Sciences (Not General Education).....	(4) + 2
<i>Requirements for Major in Botany</i> .....	44 <sup>2</sup>
Biology 305, 306, 307 .....	9
Botany 200, 204, 304, 320, 337 .....	17
Botany Electives .....	16
Sixteen hours selected from the following with at least one course from each group:	
A. 400, 404, 405, 406, 411, 412, 413, 414, 421	
B. 409, 410, 430, 439, 449, 450, 451, 485	
C. 440, 443, 444, 448	
D. 425a, 425b	
Chemistry 222a, b.....	(6) + 2 <sup>3</sup>
<i>Electives</i> .....	22-24
Electives planned to include courses in computer science, microbiology, physics, statistics, and zoology	
<i>Total</i> .....	120

<sup>1</sup>The 45-hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>Botany requirements satisfy the biological and physical sciences requirements for the College of Science and may be substituted for a maximum of 12 hours in General Education.

<sup>3</sup>Organic chemistry is recommended for those interested in plant physiology or graduate study.

**Minor**

A minor in botany consists of a minimum of 16 semester hours, selected from any botany offerings except 160, 257, 258, 259, 390, 391, 462, 490, 491, or 492.

**Courses**

For all field courses in botany, students will be assessed a transportation fee. In addition, certain courses may require the purchase of additional materials and supplies, generally \$1 to \$5 in total cost.

**160-3 Integrated Science – A Process Approach.** An interdisciplinary science course stressing processes of science; observing, classifying, using numbers, measuring, using space-time relationships, communicating, predicting, inferring, defining operationally, formulating hypotheses, interpreting data, controlling variables, and experimenting.

**200-4 General Botany.** An introduction to botany. Emphasis is placed on structure and development and associated physiological phenomena. Consideration also is given to basic aspects of plant genetics, classification, evolution, ecology, and conservation. Three lectures and one 2-hour laboratory per week.

**204-4 Plant Diversity.** An evolutionary approach to the study of major plant groups – algae to flowering plants. Emphasis will be placed on cytology, anatomy, and development. Economic and ecological aspects of various groups as they relate to humans will also be considered. Laboratory will stress principles via hands-on study of selected representatives. Three lectures and one 2-hour laboratory per week. Prerequisite: 200 or consent of instructor.

**257-2 to 8 Concurrent Work Experience Credit.** Practical experience in a laboratory or other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for ongoing work experience must be arranged prior to registration, is sought by petition to the department chairperson via the departmental undergraduate adviser, and requires the approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science. Mandatory Pass/Fail.

**258-2 to 8 Previous Work Experience Credit.** Practical experience in a laboratory or other work directly related to course work in the botany program and to the student's educational objectives may be used as a basis for granting credit in botany. Credit for past work experience is sought by petition to the department chairperson via the departmental undergraduate adviser and re-



quires approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science. No grade for past work experience.

**259-2 to 8 Vocational Education Credit.** Formal, post-secondary educational credit earned in a military service or other vocational technical or occupational program and directly related to the student's educational objectives may be used as a basis for granting credit in botany. Credit is sought by petition to the department chairperson via the departmental undergraduate adviser and requires approval of the department chairperson, the executive officer of the student's major program if other than botany, and the dean of the College of Science.

**304-3 Plant Classification.** Identification of local flora by use of various manuals. Survey of taxonomy and nomenclature. Every semester. Prerequisite: 200 or equivalent.

**308-3 Taxonomy of Cultivated Plants.** Identification of woody and herbaceous cultivated plants and discussion of their use as ornamentals. Prerequisite: consent of instructor.

**320-4 Elements of Plant Physiology.** The functions of plants and their relation to the various organs. Two lectures and four laboratory hours per week. Every semester. Prerequisite: 200; organic chemistry or a minor in chemistry.

**335-2 Methods in Genetics.** Selected organisms and techniques illustrating genetic principle. Two two-hour laboratories per week. Prerequisite: Biology 305 or equivalent.

**337-2 Ecology Laboratory.** Techniques in vegetation analysis and environmental measurements. One four-hour laboratory per week. Prerequisite: Biology 307 or equivalent.

**356-4 Plant Pathology.** A study of the nature and control of plant diseases. Fungal and bacterial diseases are stressed. Field crop diseases are emphasized. Two lectures and two laboratories per week. Prerequisite: 200 or equivalent; 320 recommended.

**357-3 Introductory Forest Pathology.** A study of the nature and control of tree diseases in forests, nurseries, parks, and streets. Fungal and bacterial diseases are stressed. Two lectures and one laboratory per week. Prerequisite: 200 or equivalent; 320 recommended.

**360-3 Introductory Biostatistics.** Introduction to basic statistical concepts and methods as applied to biological data. Includes descriptive techniques such as measures of central tendency, variability, hypothesis testing, analysis of variance, and simple linear regression. Computer analysis and report writing will be required.

**390-1 to 3 Readings in Botany.** Individually assigned readings in botanical literature. Every semester. Prerequisite: consent of departmental chairperson.

**391-1 to 4 Special Problems in Botany.** Individual laboratory or field work under supervised direction: (a) anatomy, (b) bryology, (c) ecology, (d) morphology, (e) mycology, (f) paleobotany, (g) pathology, (h) photography, (i) phycology, (j) physiology, (k) systematics. Every semester. Prerequisite: consent of departmental chairperson.

**400-4 Plant Anatomy.** An introduction to cell division, development, and maturation of the structures of the vascular plants. Laboratory. Prerequisite: 200 or consent of instructor.

**404-4 The Algae.** A phylogenetic approach to the study of algae with emphasis on comparative cytology, morphology, and ecology. Laboratories include a detailed survey of freshwater algae and a general treatment of representative marine forms. Two lectures and two two-hour laboratories per week. Prerequisite: 204 or consent of instructor.

**405-4 The Fungi.** A survey of the fungi – their structure, development, relationships, ecological roles, and economic importance. Two lectures and two laboratories. Prerequisite: 204 or equivalent.

**406-3 Bryology.** Structure, development, and relationships of the liverworts, hornworts, and mosses. Two lectures and one laboratory per week. Prerequisite: 204 or equivalent.

**409-3 Field Mycology.** The taxonomy, ecology, and distribution of fungi in southern Illinois and environs with emphasis on techniques of specimen collection, preservation, identification, and recognition. Prerequisite: 200; 204 recommended.

**410-3 Taxonomy and Ecology of Bryophytes and Lichens.** Floristic studies of the moss, liverwort, hornwort, and lichen communities of southern Illinois. Prerequisite: 200 or equivalent, or consent of instructor.

**411-3 Morphology of Ferns and Fern Allies.** The study of external form, internal structure, and relationships of ferns and fern allies. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

**412-3 Morphology of Gymnosperms.** The study of external form, internal structure, and relationships of gymnosperms. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

**413-3 Morphology of Angiosperms.** The study of external form, internal structure, and relationships of the flowering plants. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

**414-3 Paleobotany.** (Same as Geology 414) The study of external form, internal structure, and relationships of plant fossils. Two lectures and one laboratory per week. Prerequisite: 204; 400 recommended.

**421-4 Botanical Microtechnique.** Introduction to practical methods of preservation and preparation of plant materials for laboratory and microscopic study. Paraffin and plastic embedding and sectioning techniques, and use of general and histochemical stains stressed. Includes chromosome squashing, whole-mount preparation, photomicrography, and other techniques. One lecture and three laboratories per week. Prerequisite: 200 or equivalent.



**425-10 (5, 5) Advanced Plant Physiology.** (a) Intermediary plant metabolism. Characterization of the photosynthetic and metabolic pathways of biosynthesis and degradation of organic constituents; role of environmental regulants of plant metabolism. (b) Physics of plants; membrane phenomena; water relations; mineral nutrition. Prerequisite: 320 and consent of instructor.

**430-3 Economic Botany.** Classification, evolution, domestication, and botanical characteristics of plants useful to people. Every year. Prerequisite: 200 or equivalent.

**439-2 Natural Areas and Rare and Endangered Species.** Evaluation of the natural area preservation concept with emphasis on how to detect natural areas and methods to preserve them. Emphasis on the rare and endangered species program, its significance, and its methodology. Prerequisite: 304, Biology 307.

**440-3 Grassland Ecology.** A study of grassland structure and function in relation to various biotic and abiotic factors. Cost of field trips (\$5) and textbooks must be incurred by the student. Prerequisite: 304 and Biology 307 or equivalent.

**443-4 Forest Ecology and Reclamation.** Soil, climatic, and genetic factors affecting tree distribution and growth in disturbed and natural habitats. Saturday field trips. Prerequisite: 307 or equivalent.

**444-4 Analysis and Classification of Vegetation.** Includes concepts and analytical methods pertaining to plant community energetics, nutrient dynamics, succession, vegetation classification and niche theory. Laboratory will include the application of these concepts and methods to field situations. Cost of textbooks and travel fee (\$15) must be incurred by the student. Prerequisite: Biology 307 or equivalent.

**446-4 Tropical Ecology.** Two weeks of marine ecology on the atolls and extensive barrier reef off the coast of Belize, British Honduras, and two weeks of terrestrial ecology at several locations inland. Cost varies yearly. Summer. Prerequisite: advanced undergraduate or graduate standing in one of biological sciences, and concurrent enrollment in Zoology 446.

**447-2 to 6 Field Studies in Latin America.** Two to six weeks of intensive field work to acquaint students with the flora and vegetation in various environments of Latin America and with ecological and taxonomic field techniques. Cost varies with type of study and location. Transportation cost: \$80. Prerequisite: advanced standing in one of the biological sciences and consent of instructor.

**448-3 to 8 Field Studies in the Western United States.** Three to six weeks of intensive field work designed to acquaint students with the flora, vegetation, and environments of the Rocky Mountains and adjacent areas. Both ecological and taxonomic field methods are emphasized. Transportation cost (\$100), travel expenses, and textbooks must be incurred by the student. Prerequisite: 304, Biology 307 or equivalents, and consent of instructor.

**449-2 Elements of Taxonomy.** Principles of taxonomy including historical sketch, phyletic concepts, classical and experimental methods. One lecture and three laboratory hours per week. Prerequisite: 304 or equivalent, or consent of instructor.

**450-2 Plant Geography.** World distribution of plants related to environmental, floristic, and historical factors. Prerequisite: interest in biology.

**451-4 Upland Flora.** The taxonomy, ecology, and distribution of the natural vegetation in and around upland habitats of the Mississippi Basin. Prerequisite: 304 or consent of instructor.

**456-2 Advanced Plant Pathology.** A study of the changes occurring in host and pathogen at the host-parasite interface before, during, and after penetration. Control measures will be discussed and emphasis will be on midwest field crops. Two lectures per week. Prerequisite: 356 or consent of instructor.

**457-2 Advanced Forest Pathology.** A survey of recent literature on major forest diseases with emphasis on host-parasite interactions and disease control. Students will develop detailed literature reviews on selected pathology problems and design experiments for solving these problems. Two lectures per week. Prerequisite: 357 or consent of instructor.

**462-4 Science Process and Concepts for Teachers of Grades N-8.** (Same as Curriculum, Instruction, and Media 427.) Specifically designed to develop those cognitive processes and concepts needed by elementary teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

**484-3 Palynology.** (See Geology 484.)

**485-2 Botanical Literature.** A survey of the major classical and modern writings in the botanical sciences. This includes a consideration of the primary subdivisions; systematics, structure, physiology, genetics, and ecology. In addition, periodicals will be treated. Prerequisite: consent of instructor.

**490-3 Photographic Methods in Scientific and Biological Photography.** Black and white and color. Specimen photography, macrophotography. Slides for presentation, materials and methods used in scientific publications. Prerequisite: consent of instructor.

**491-3 Scientific Illustration.** Materials and methods used in illustrating scientific publications including two-dimensional graphs, maps, lettering, and line drawings. Three dimensional techniques will also be covered. Prerequisite: consent of instructor.

**492-2 to 6 Honors in Botany.** Individual research problems available to qualified juniors and seniors. Prerequisite: consent of department chairperson.

**500-3 Advanced Plant Anatomy.**

**503-10 (5, 5) Advanced Angiosperm Taxonomy.**



524-2 Advanced Plant Genetics.  
 525-3 Cytology.  
 526-4 Cytogenetics.  
 532-3 Embryogenesis and Organography of Plants.  
 533-3 Plant Growth and Morphogenesis.  
 534-2 Techniques in Studies of Plant Growth and Development.  
 535-2 Energetics of Aquatic Ecosystems.  
 542-2 Biosystematics.  
 543-2 Tree Growth.  
 551-3 Upland Flora.  
 552-3 Lowland Flora.  
 570-2 to 3 Graduate Readings in Botany.  
 580-1 to 6 (1 per semester) Seminar.  
 584-3 Advanced Palynology.  
 585-2 to 6 (2 per semester) Advanced Topics in Systematics.  
 589-1 to 12 (1 per topic per semester) Seminars in Botany.  
 590-1 to 3 Introduction to Research.  
 591-2 to 9 Research.  
 599-2 to 9 Thesis.  
 600-1 to 36 (1 to 12 per semester) Dissertation.  
 601-1 to 12 per semester Continuing Research.

## Business Administration (Major, [Graduate only], Courses)

The graduate faculty in business administration, consisting of members of the Departments of Accountancy, Finance, Management, and Marketing of the College of Business and Administration, offers graduate work leading to the Master of Business Administration degree. The MBA program has as its objective the development of professional managers and executives to serve the needs of business and government and to prepare interested graduates for doctoral study. The program has been structured with flexibility so as to serve holders of baccalaureate degrees in business administration as well as those who hold degrees in other disciplines. For a more complete description of the program, refer to the Graduate Catalog.

### Courses

**410-3 Financial Accounting Concepts.** (Same as Accounting 521). Basic concepts, principles, and techniques used in the generation of accounting data for financial statement preparation and interpretation. Asset, liability, and equity valuations; and income determination is stressed. Prerequisite: Enrollment in MBA program or consent of department.  
**430-3 Business Finance.** An introductory course combining both a description of the structure of business financing and an analysis of functional finance from a managerial viewpoint. Prerequisite: enrollment in MBA program or consent of instructor.  
**440-3 The Management Process.** Analysis of management theories and the administrative process. Specific managerial activities are analyzed and discussed. Functional relationships in administered organizations are explored. Prerequisite: enrollment in MBA program or consent of instructor.  
**450-3 Introduction to Marketing Concepts.** An overview of the role of marketing within an economic system and of the major marketing activities and decisions within an organization. Emphasis is on developing an understanding of the marketing process. Prerequisite: enrollment in MBA program or consent of department.  
**451-3 Methods of Quantitative Analysis.** (See Mathematics 457.)  
**452-3 Operations Research.** A survey of operations research techniques with emphasis on problem formulation, model building, and model solution. Topics include mathematical programming, waiting-line models, simulation, and design theory. Prerequisite: enrollment in MBA program or consent of department.  
**470-3 Legal and Social Environment.** An overview of the legal, social, and ethical dimensions which influence business with particular attention to the role of law as a control factor of society in the business world. Prerequisite: enrollment in MBA program or consent of department.  
**500-3 Research Applications in Business and Organizations.**  
**502-3 Business in Our Capitalistic Society.**  
**510-3 Managerial Accounting and Control Concepts.**  
**511-3 Accounting Theory.**  
**512-3 Auditing Concepts.**

- 513-3 Accounting Concepts in Business Organizations.
- 514-3 Controllership.
- 515-3 Accounting Information System Concepts.
- 516-3 Tax Concepts.
- 519-3 Seminar in Accounting.
- 520-3 Production/Operations Management.
- 521-3 Business Conditions Analysis.
- 526-3 Managerial Economics.
- 530-3 Financial Management.
- 531-3 Advanced Financial Management.
- 532-3 Financial Institutions and Markets.
- 533-3 Investment Concepts.
- 534-3 Financial Decision Making.
- 536-3 Advanced Financial Analysis.
- 539-3 Seminar in Finance.
- 540-3 Managerial and Organization Behavior.
- 541-3 Operations Research II.
- 543-3 Personnel Management.
- 544-3 Advanced Production Planning and Inventory Management.
- 545-3 Organization of Complex Systems.
- 546-3 Leadership and Managerial Behavior.
- 549-3 Seminar in Administration.
- 550-3 Marketing Management.
- 551-3 Product Strategy and Management.
- 552-3 Advanced Marketing Research and Analysis.
- 555-3 Consumer Behavior.
- 556-3 Marketing Strategy for Organizations.
- 558-3 Promotional Theory and Strategy.
- 559-3 Seminar in Marketing.
- 560-3 Management Information Systems.
- 571-3 Mission and Domain Analysis.
- 572-3 Forecasting and Decision-Making Models.
- 573-3 Planning Systems and Strategic Decisions.
- 574-3 Advanced Research Methods in Business Administration.
- 580-3 International Business Operations.
- 591-3 Independent Study.
- 598-3 Business Policies.
- 599-3 to 6 Thesis.
- 600-1 to 24 (1 to 16 per semester) Dissertation.
- 601-1 to 12 per semester Continuing Research.

**Business and Administration (Major)**

The Bachelor of Science degree program with a major in business and administration is a college-wide degree which is intended for those students with personal and professional goals which cannot be met by one of the existing majors, i.e., accounting, business economics, finance, management, or marketing, available in the college and in addition have an interest in subject areas offered in other schools and colleges of the University. The program requires students to combine interests – business with an outside field – into a unique program. For example, a student with international business interest can combine business and administration with foreign languages; a student interested in going into the restaurant business can combine course work in food and nutrition with business and administration. The outside field, or secondary concentration, would have to be consistent with a specific career objective or personal development plan and at least 20 semester hours must be structured to achieve this objective. Individual programs would be subject to the approval of the dean of the College of Business and Administration.

**Bachelor of Science Degree, College of Business and Administration**



Professional Business Core (See page 81) .....	40-43
Requirements for Major in Business and Administration.....	20-23
Secondary concentration approved by the dean	
Electives .....	9-15
Total.....	120

Business Economics (Major)

The business economics major offered through the College of Business and Administration emphasizes the application of economic concepts and the use of critical analysis to the solution of economic and managerial problems.

This undergraduate program is an excellent general preparation for future managerial and staff assignments in a variety of business and public organizations. The program also prepares students for graduate study in economics as well as for the Master of Business Administration (MBA) degree.

Those students who desire professional careers as business and managerial economists are advised to plan to complete one to four years of postgraduate study.

Bachelor of Science Degree, College of Business and Administration

General Education Requirements.....	45
Professional Business Core (See page 81) .....	40-43
Requirements for Major in Business Economics .....	15-18
Economics 315, 340, 341 .....	9
Finance 462 or 463.....	(3) <sup>1</sup>
Three courses from the following list, two of which must be in economics .....	6-9
Economics 310, 330, 329, 436, 443, 465, 467	
Accounting 331, 341, 471	
Finance 331, 341, 464	
Management 345, 352, 361	
Marketing 341, 390, 435	
Electives .....	14-20
Total .....	120

<sup>1</sup>Hours shown in parentheses are already included in total of hours shown for professional business core.

Business Education

(SEE VOCATIONAL EDUCATION STUDIES)

Career Development

(SEE ADVANCED TECHNICAL STUDIES)

Chemistry and Biochemistry (Department, Major [Chemistry], Courses)

The Department of Chemistry and Biochemistry offers three degree programs with a major in chemistry. The first is the Bachelor of Science degree in the College of Science. This degree is for those who wish to prepare for graduate study in

chemistry or who will become professional chemists. Students completing this degree program will be certified by the American Chemical Society.

The second is the Bachelor of Arts degree in the College of Science. This program is designed primarily for students who wish to complete a major in chemistry, but who plan to eventually go into other professional areas such as medicine, dentistry, or business.

The third program of study leads to the Bachelor of Science degree in the College of Education. This degree program is administered by the College of Education. It is provided for those students who wish to become secondary school chemistry teachers.

Among the new professions which have arisen because of the increasing complexity and interdisciplinary nature of scientific and technological problem solving is that made up of chemists whose interests are in management, marketing, and production rather than research and development. Students who recognize an early interest in a combined chemistry and business career can plan their programs around the administration option. This is a cooperative program between the Department of Chemistry and Biochemistry and the College of Business and Administration. For further information contact the department chairperson or undergraduate adviser.

Candidates for admission to degree programs are required to have a 2.0 grade point average in chemistry courses. However, students with grade point averages in chemistry courses below 2.25 can expect to have difficulty in advanced courses.

If the College of Science foreign language requirement has not been met by high school or proficiency examination credit, it is recommended that German, French, or Russian be taken to satisfy that requirement.

A knowledge of computer programming is recommended for all majors in chemistry.

Students taking a laboratory course will be required to purchase a notebook or a laboratory exercise book costing approximately \$1.50 to \$8.50. All students enrolled in a chemistry class that includes a laboratory session will be assessed a breakage charge for all glassware broken. The amount assessed will be based on actual replacement costs.

### **Bachelor of Science Degree, College of Science**

CERTIFIED BY THE AMERICAN CHEMICAL SOCIETY

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	6-7
Foreign Language .....	(4) + 4
Mathematics 108 and 109 or 111 .....	(3) + 2-3
Biological Sciences (not general education) .....	(6) <sup>1</sup>
<i>Requirements for Major in Chemistry</i> .....	64
Chemistry 222a,b; 226, 344 and 345; 346 and 349; 462a,b; 434; 411; and 490. In addition, two courses from among 436; 446; 450 (451a,b may be substituted for 450 but will count as only one course); 455; but at least one must be from among 436, 446, 450 (with laboratory). The total hours must be at least 48. ....	(3) + 46
Mathematics 150, 250, 251, 305. ....	14
Physics 205a,b and 255a b .....	(4) + 4
German 126a,b .....	(8) <sup>2</sup>
<i>Electives</i> .....	4-5
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>Russian or French may be substituted with departmental permission.



**Bachelor of Arts Degree, College of Science**

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	6-7
Foreign Language .....	(4) + 4
Mathematics 108 and 109 or 111 .....	(3) + 2-3
Biological Science (not general education).....	(6) <sup>1</sup>
<i>Requirements for Major in Chemistry</i> .....	53-57
Chemistry 222a,b; 226; 344 and 345 plus 346 and 349; either 462a,b or 460; 434; plus additional courses to give a minimum of 34 hours .....	34-38
Mathematics 150, 250, and 251 or 305 (251 is prerequisite to Chemistry 462a,b).....	11
Physics 205a,b and 255a,b <sup>2</sup> .....	8
<i>Electives</i> .....	11-16
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>Certain other courses may be substituted with permission of the department.

**Bachelor of Science Degree, College of Education**

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Requirements for Major in Chemistry</i> .....	42-48 <sup>2</sup>
Chemistry 222a,b; 226; 344 and 345 plus 346 and 349; 462a,b or 460 .....	(4) + 24-30
Mathematics 111 or 108 and 109, 150, 250 and 251 or 305 recommended (251 is prerequisite to Chemistry 462a,b).....	(3) + 13
Physics 203a,b and 253a,b or 205a,b and 255a,b .....	(3) + 5
Modern foreign language recommended	
<i>Professional Education Requirements</i> .....	28
See Teacher Education Program, page 83. Secondary educa- tion majors must take a special methods course. Curricu- lum, Instruction and Media 468 fulfills this requirement.	
<i>Electives</i> .....	0-7
<i>Total</i> .....	120

<sup>1</sup>Refer to Professional Education Experience for General Education courses which may be required.

<sup>2</sup>Chemistry majors must complete a minor in mathematics. Students wishing to qualify for teaching mathematics in the secondary schools should take, in addition, Mathematics 311, or 319 and 319e, or 352 and 352e.

**Minor**

The minor in chemistry requires a minimum of 16 semester hours including 222a,b. Elective courses must be selected with at least one course in each of two different areas of chemistry. Recommended courses are 226, 380a,b, 460.

**Courses**

**115-3 Introductory General Chemistry.** A preparation for 222a for students without a year of high school chemistry or for those who feel their background is inadequate. The course concentrates only on those skills immediately necessary to begin work in 222a. It does not serve as a one-semester course in chemistry that can substitute for 140a or GE-A 106. Prerequisite: one year of high school algebra or the equivalent.

**140-8 (4, 4) Chemistry.** A two-semester course of general, organic, and biological chemistry designed to meet the needs of students of nursing, dental hygiene, physical therapy, other allied health programs, agriculture, forestry, home economics and other majors with comparable requirements. This course does not satisfy prerequisite requirements for other courses offered by the De-

partment of Chemistry and Biochemistry. It is not applicable to a major or minor in chemistry. Three lectures and one three-hour laboratory per week. Must be taken in a,b sequence.

**222-8 (4, 4) Introduction to Chemical Principles.** For students majoring in scientific, preprofessional, engineering, or technological programs. Atomic structure, molecular structure and bonding, stoichiometry, properties of gases, liquids and solids, thermodynamics and kinetics, chemical equilibria, pH, electrochemistry. Three lectures and one three-hour laboratory per week. Must be taken in a,b sequence. The student will need a calculator with log and inverse log capability (base 10 or base e). Prerequisite: one year of high school chemistry; or 115; two years of high school algebra or concurrent enrollment in GE-D 107.

**222C-3 Introduction to Chemical Principles.** Students in the College of Engineering and Technology may take 222c instead of 222b. The three lectures per week are the same as for 222b but there is no laboratory work for 222c. This course, 222c, cannot be used to satisfy a 222b prerequisite. The student will need a calculator with log and inverse log (base 10 or e) capability. Prerequisite: 222a and registration as an engineering major.

**226-5 (3, 2) Introduction to Quantitative Chemical Principles.** Fundamental concepts of quantitative chemical analysis emphasizing classical techniques such as gravimetry, colorimetry, and titrimetry. Chemical aspects of solubility, equilibria, competitive reactions, etc., are related to practical analysis of real samples. Major emphasis is placed on development of the proficient laboratory skills required for accurate and precise analysis. For a, two lectures and a three-hour laboratory per week; for b, one lecture and a three-hour laboratory per week. A reasonable knowledge of logarithms and algebra is assumed; a calculator with log/inverse log capability is required. Must be taken in a,b sequence. Prerequisite: for a, 222b; for b, 226a.

**344-4 Organic Chemistry.** A fundamental introduction to the chemistry of carbon compounds designed for chemistry, and other science majors; premed and pre dental students, engineers, and others ultimately requiring a year of organic chemistry. Four lectures per week. Prerequisite: 222b. Concurrent enrollment in 345 is recommended.

**345-2 Laboratory Techniques.** Physical techniques and reactions of inorganic and organic compounds. One three-hour laboratory and one laboratory-lecture per week. Prerequisite: 222b. Concurrent enrollment in 344 is recommended.

**346-2 Organic Chemistry.** The organic chemistry of compounds of biological interest with emphasis on the mechanistic, structural, and stereochemical approach to organic chemistry. Two lectures per week. Prerequisite: 344 and 345. Concurrent enrollment in 347 or 349 is recommended.

**347-3 Laboratory Techniques.** A laboratory course for preprofessionals and those wanting a minor in chemistry. Synthesis and reactions of compounds of biological interest. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345. Concurrent enrollment in 346 is recommended.

**349-3 Laboratory Techniques.** A laboratory course for chemistry majors. Synthesis and structural identification of inorganic and organic compounds, with emphasis on instrumental procedures. One laboratory-lecture and two three-hour laboratories per week. Prerequisite: 344 and 345. Concurrent enrollment in 346 is recommended.

**375-1 to 2 Undergraduate Seminar.** For juniors and seniors with a major in chemistry. Prerequisite: consent of the department chairperson.

**380-8 (4, 4) Introductory Organic and Biological Chemistry.** (a) Survey of basic elements of organic chemistry. Three lectures per week, plus seven laboratory/lecture and seven three-hour laboratories per semester. Prerequisite: 222b. (b) Survey of basic elements of biochemistry. Three lectures per week, plus seven laboratory/lecture and seven three-hour laboratories per semester. Prerequisite: 380a. Must be taken in a,b sequence. This course does not satisfy the prerequisite requirement for any other course in chemistry or biochemistry.

**396-4 (2, 2) Chemical Problems.** Chemical investigations under the direction and supervision of a faculty member. Prerequisite: consent of instructor and four semesters of chemistry laboratory.

**411-3 Intermediate Inorganic Chemistry.** Fundamentals of inorganic chemistry, covering bonding and structure, coordination compounds, and the chemistry of some familiar and less familiar elements. Three lectures per week. Prerequisite: 460 or 462a or concurrent enrollment in either.

**416-3 X-Ray Crystallography.** (See Geology 416.) Prerequisite: 222b, one year of college physics and Mathematics 150.

**431-4 Environmental Analytical Chemistry.** Practical applications of common instrumental and wet methods to the determination of chemical substances in common natural and commercial materials. Techniques will include titrimetry; quantitative transfer of liquids and solids; gas, thin-layer and ion-exchange chromatography; atomic absorption; flame photometry; ion selective electrode potentiometry; and spectrophotometry. The course is intended for senior-level and graduate students in disciplines other than chemistry who desire to know the practical aspects of laboratory measurements. The course is not applicable to a major in chemistry. One lecture, one laboratory-lecture, and two three-hour laboratories per week. Prerequisite: 222a,b or nine hours of chemistry excluding general education courses.

**434-2 or 4 Instrumental Analytical Chemistry.** Theory and practice of modern instrumental measurements, including emission and absorption spectroscopic, electroanalytical, and chromatographic methods, and an introduction to applied electronics. Two lectures and two three-hour laboratories per week for four credits. Enrollment for two credit hours is restricted to graduate



students in the Department of Chemistry and Biochemistry advised to take instrumental analysis. Prerequisite: one semester of physical chemistry or concurrent enrollment in 462a or 460.

**436-3 Analytical Separations and Analyses.** A study of the analyses of complex materials, usually inorganic, with emphasis on separations, functional-group chemical analyses, and instrumental applications. Two lectures and one three-hour laboratory per week. Prerequisite: 226 and one semester of physical chemistry which may be taken concurrently.

**444-3 Intermediate Organic Chemistry.** Intended for incoming graduate students and advanced preprofessional students. Provides students with intermediate level coverage of organic reactions, mechanisms, syntheses, and structure of determination. Emphasis will be placed on problem solving, including structure elucidation, road map sequences, multistep synthetic sequences, and elucidation of reaction mechanisms including those with stereochemistry and multiple sites of reactivity. Prerequisite: 344, 346, or equivalent and consent of instructor.

**446-4 Qualitative Organic Analysis.** A systematic study of the separation and identification of organic compounds. Two lecture and six hours of laboratory per week. Prerequisite: 226 and either 346 and 349 or consent of instructor.

**450-3 or 4 Survey of Biochemistry.** Chemistry, function, and metabolism of amino acids, proteins, enzymes, carbohydrates, lipids, and nucleic acids. For students desiring a terminal, one-semester survey of biochemistry. Three lectures per week for 3 credits. Students desiring laboratory experience register for 4 credit hours in an appropriate laboratory section; one laboratory per week. Prerequisite: 346 and biological science.

**451-6 (3, 3) Biochemistry.** (a) Chemistry and function of amino acids, proteins, and enzymes; enzyme kinetics; chemistry, function, and metabolism of carbohydrates; citric acid cycle; electron transport and oxidative phosphorylation. (b) Chemistry, function, and metabolism of lipids; nitrogen metabolism; nucleic acid and protein biosynthesis; metabolic regulation. Three lectures per week. Must be taken in a,b sequence. Prerequisite: one year of organic chemistry.

**455-4 Biochemistry Laboratory.** Modern biochemical laboratory techniques for isolation, purification, and characterization of constituents of living cells and for investigations of pathways, kinetics, energetics, and regulatory mechanisms related to metabolism and enzymic activity. One lecture and eight hours of laboratory per week. Prerequisite: 451a and 226 or concurrent enrollment; graduate standing in the Department of Chemistry and Biochemistry or consent of the instructor.

**460-4 or 5 Principles of Physical Chemistry.** A one-semester course in physical chemistry designed especially for non-chemistry majors. Not for those who intend to be professional chemists. Chemistry majors taking 460 instead of 462 a,b must take the laboratory. Non-chemistry majors may take the course for 4 credit and omit the laboratory. Four lectures and one three-hour laboratory per week. Prerequisite: 222a,b Mathematics 150 or 140 or 141; Chemistry 226 for the laboratory option.

**462-8 or 10 (4 or 5, 4 or 5) Physical Chemistry.** Four lectures and one three-hour laboratory per week. Enrollment for lectures only is restricted to graduate students in the department who are advised by the department in special cases. (a) Classical thermodynamics and its applications, statistical thermodynamics, and chemical kinetics. Prerequisite: 226, Mathematics 251. (b) Quantum mechanics of atoms and molecules, molecular spectroscopy. Laboratory work includes analysis of data, computational techniques, and typical chemical measurements. Prerequisite: 462a, Mathematics 305 recommended. Must be taken in a,b sequence.

**471-2 Industrial Chemistry.** A survey of modern industrial chemistry and an introduction to chemical research processes. Two lectures per week. Prerequisite: 346 and 347 or 349.

**489-1 to 3 Special Topics in Chemistry.** Prerequisite: consent of instructor and of chairperson.

**490-2 Chemical Literature.** A description of the various sources of chemical information and the techniques for carrying out literature searches. Two lectures per week. Prerequisite: 346 and 347 or 349.

**491-2 History of Chemistry.** The evolution of chemistry from ancient times until 1920. Two lectures per week.

**496-1 to 8 Undergraduate Research (Honors).** Introduction to independent research under the direction of a faculty member culminating in a written report. Not for graduate credit. Prerequisite: a 3.0 grade point average, five semesters of chemistry laboratory including one semester of physical chemistry, consent of instructor and department chairperson.

**502-2 Molecular Orbital Theory.**

**511-6 (3, 3) Advanced Inorganic Chemistry.**

**519-1 to 9 (1 to 3 per semester) Advanced Topics in Inorganic Chemistry.**

**531-3 Theory of Chemical Analysis.**

**532-3 Analytical Chemistry Instrumentation.**

**535-3 Advanced Analytical Chemistry.**

**539-1 to 9 (1 to 3 per semester) Advanced Topics in Analytical Chemistry.**

**541-3 Organic Structure and Reactivity.**

**542-3 Mechanistic Organic Chemistry.**

**543-3 Synthetic Organic Chemistry.**

**549-1 to 9 (1 to 3 per semester) Advanced Topics in Organic Chemistry.**

**556-1 to 7 Advanced Biochemistry.**

**559-1 to 12 (1 to 3 per semester) Selected Topics in Biochemistry.**

560-3 Introduction to Quantum Chemistry.  
562-6 (3, 3) Advanced Molecular Spectroscopy.  
564-3 Statistical Thermodynamics.  
565-3 Group Theory.  
569-1 to 9 (1 to 3 per semester) Advanced Topics in Physical Chemistry.  
594-2 or 3 Special Readings in Chemistry.  
595-1 Advanced Seminar in Chemistry.  
597-1 to 15 Professional Training.  
598-1 to 50 (1 to 12 per semester) Research.  
599-1 to 6 Thesis.  
600-1 to 30 (1 to 12 per semester) Dissertation – Doctoral.  
601-1 to 12 per semester Continuing Research.

## Child and Family

(SEE CURRICULUM, INSTRUCTION AND MEDIA)

## Cinema and Photography (Department, Major, Courses)

The major in cinema and photography provides undergraduate students with experience and background in the history, theory, and practice of cinematic and photographic communication and expression. The program is structured to make available a foundation for professional, fine arts, and educational careers in cinema and photography; to explore the social, critical, and ideological implications of still and motion pictures; and to provide opportunities for study of and experimentation with both cinema and photography as media for communication and personal expression.

The major requires a minimum of 38 hours in cinema and photography coursework, including the required courses in the department. Students may tailor coursework selection to meet specific areas of emphasis: cinema production, cinema studies, fine arts photography, professional photography, photojournalism.

Students are urged to declare their major as soon as possible. To be admitted to the major, a student must have a grade point average of *C* or better. In order to remain in the major, each student must maintain an overall grade point average of at least a *C* and at least a *C* average for all cinema and photography coursework. Grades below *C* in cinema and photography courses will not be accepted as fulfilling minimum major requirements. Cinema and photography courses in which students have received grades of *D*, *F*, *AU*, or *INC* may not be used to satisfy prerequisite requirements for other cinema and photography courses.

Courses in cinema and photography have limited enrollment, especially advanced courses. Not all courses are offered each semester. Admission to certain cinema and photography courses is restricted, and permission must be obtained prior to registration. Permission to register for some courses is based upon submission of photographic portfolios or films. Students are encouraged to plan their course scheduling well in advance to ensure necessary prerequisites and fulfillment of major requirements.

Students may design their own programs of study within the requirements for graduation. The department recommends that students choose an area of emphasis to give a sense of direction to their studies. Students interested in cinema production are encouraged to enroll in 349, 355, 356, 360, 368, 452, 455 and 456, 470b, 472, and nine hours of cinema history courses; cinema studies, 349, 355, 356, 360, 368, 449, 462, 463, 466, 467, 468, 470a, and 499; fine arts photography, 310, 311, 320, 322, 401, 402, 420, 421, 422, 425, 426, 470c and 471; professional photography, 310, 311, 320, 322, 401, 402, 404, 405, 406, 407, 408, and 418; photojournalism, 310, 311, 320, 322, 407, 408, 418, and Journalism 300, 310, and 311.

Cinema and Photography 499 or its equivalent is required of all majors who



have not completed 320 and 322 and optional for others. This senior thesis will consist of the preparation of a film, screenplay, research or critical paper under the supervision of a cinema and photography faculty member. A copy of the thesis is to be provided for the department by the student.

Students with an interest in cinema studies may earn credit toward their Southern Illinois University degree by studying at the Inter-University Center for Film and Critical Studies in Paris. Information about the program is available from the department.

Students provide photographic materials for all cinema and photography production courses. In still photography production courses, students supply their own film, photographic paper, certain specialized chemicals, and a fully adjustable 35mm or 120 roll film camera. Some students have found that owning additional items of equipment is advantageous. A fee for laboratory materials is charged for each still photography production course in which the student enrolls. In cinema production courses, students provide their own film, processing, recording materials, and editing supplies. In courses which involve the screening of a number of films, there is a \$10 screening fee.

The University reserves the right to retain examples of the work of each student in each photography class, to make and retain prints of all films made as part of course work other than thesis, and to retain copies of student papers. Such photographs, films, or papers become part of a permanent departmental collection.

No more than nine hours from a combination of the following courses may count toward the first 38 hours in the cinema and photography major: 491, 495, 497.

Electives, required for the major in cinema and photography, are defined as coursework outside the minimal General Education requirements and not offered for major credit in the department. There is no required minor.

**Bachelor of Arts Degree, College of Communications and Fine Arts**

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Cinema and Photography</i> .....	38-54
Either Cinema and Photography 310 and 311 or 360 and 368 .....	6
Either Cinema and Photography 320 and 322 or 355 and 356 .....	8
Cinema and Photography courses numbered 400 to 499 .....	24
Must include 499 or its equivalent if 320 and 322 have not been taken.	
Cinema and Photography electives .....	0-16
<i>Electives</i> .....	21-37
<i>Total</i> .....	120

**Courses**

- 257-1 to 6 Work Experience.** Used to recognize concurrent work experience related to the student's educational objective. One to six hours of credit may be applied toward graduation requirements following departmental evaluation and approval. Prerequisite: consent of the department.
- 258-1 to 6 Work Experience.** Used to recognize past work experience related to student's educational objectives. One to six hours of credit may be applied toward graduation requirements following departmental evaluation and approval. Student must apply for this credit during first year as declared major. Prerequisite: consent of department.
- 310-3 History of Still Photography.** A survey of the important images, ideas, people, and processes that make up the history of still photography. Covers from 1839 to the mid-twentieth century. Students purchase texts.
- 311-3 Contemporary Photography.** A survey of contemporary photographers, their concepts, and the influences of their work upon culture. Covers from mid-twentieth century to the present. Students may be required to purchase texts. Completion of 310 may be helpful, but is not required.
- 320-4 Basic Photography.** An introduction to black and white still photography; its materials, processes, and vision. Designed to give technical knowledge and to explore visual perception. Students must have fully adjustable camera, may purchase texts, and will supply own materials and some chemicals. Laboratory fee.
- 321-3 Intermediate Black and White Photography.** Continuation of the exploration of vision and craft in black and white photography begun in 320. Concentration on idea development with



the objective of producing a portfolio demonstrating unique vision. Students supply materials and some chemicals, may purchase texts. Laboratory fee. Prerequisite: 320 and consent of department.

**322-4 Color Photography.** Introduction to color still photography, its materials, processes, and vision. Students purchase materials and may purchase texts. Laboratory fee. Prerequisite: 320 or equivalent and consent of department.

**349-3 The Cinema.** The cinema as a communicative and expressive media. Study of film types illustrated by screenings of selected films. Screening fee.

**355-4 Film Production I.** Basic techniques for filmmaking. Production of Super 8 motion pictures. Students purchase texts, film stock and processing. Requires access to Super 8 camera and cassette recorder. Non-majors by consent of department.

**356-4 Film Production II.** Techniques of 16mm double system sound film production. Production of films by individuals or crews. Students purchase texts, film stock, processing, sound materials and laboratory services. Prerequisite: 355 and consent of department.

**360-3 Film Analysis.** The relationships among structure, style and meaning in all types of films. Screening fee. Students purchase texts.

**368-3 Introduction to Cinema Theory.** A survey of cinema theories propounded by figures such as Münsterberg, Arnheim, Eisenstein, Bazin, Kracauer, and important modern theorists. The course covers the wide range of major attempts to derive the essence of cinema. Films that exemplify or raise theoretical issues are screened. Screening fee. Students purchase texts. Prerequisite: 360.

**401-3 Large Format Photography.** Introduction to the aesthetics and techniques of large format (sheet film cameras) photography with emphasis on personal expression and commercial/professional applications. Students purchase texts and provide photographic materials and chemicals. \$15 for additional laboratory materials. Prerequisite: 322 or concurrent enrollment and consent of department.

**402-3 Sensitometry.** An advanced course dealing with the technical and visual applications of the black and white process. Explores the zone system, density parameter system, and practical chemistry. Also deals with the visual application of these systems. \$15 cost for additional laboratory materials. Prerequisite: 320 and consent of department.

**404-3 Introduction to the Studio.** Problems and possibilities in the aesthetics and techniques of studio photography: lighting, visual perception, environment, history, theory. Students purchase texts and provide photographic materials. \$15 laboratory fee. Prerequisite: 320 or consent of department.

**405-3 Commercial/Industrial Photography.** History, theory and practice of commercial and industrial photography. Students purchase texts and provide photographic materials and chemicals. \$15 cost for additional laboratory materials. Prerequisite: 322 and consent of department.

**406-3 Advertising/Illustrative Photography.** History, theory and practice of photography as used for advertising, illustration and editorial purposes. Students purchase texts and provide photographic materials and chemicals. \$15 cost for additional laboratory materials. Prerequisite: 405 and consent of department.

**407-3 Publications Photography I.** History, theory and practice of photographic news reporting with emphasis on production and design of picture stories and essays. Students purchase texts and provide photographic materials and chemicals. \$15 cost for additional laboratory materials. Prerequisite: 322 and/or consent of department.

**408-3 Publications Photography II.** History, theory and production of picture essays, including research, lay-out, captions and text. Black and white and color. Students purchase texts and provide photographic materials and chemicals. \$15 cost for additional laboratory materials. Prerequisite: 407 and consent of department.

**418-3 Documentary Photography.** History, theory, and practice of documentary still photography. Contemporary and traditional approaches examined. Production of documentary project or projects. Students provide photographic materials and chemicals and may purchase texts. Laboratory fee. Prerequisite: 322 or consent of department.

**420-3 Experimental Camera Techniques.** Experimental approaches to the creation of photographic images in the camera. Students provide materials and may be required to purchase texts. Laboratory fee. Prerequisite: 322 and consent of department.

**421-3 Experimental Darkroom Techniques.** Experimental darkroom manipulations of the straight camera image. Students provide materials and may purchase texts. Laboratory fee. Prerequisite: 322 or consent of department.

**422-3 Advanced Color Photography.** Advanced study and production of color photographs with emphasis on experimental techniques using Dye Transfer, Kwik Proof, and other forms of photo-mechanical reproduction. Students provide materials and may purchase texts. Laboratory fee. Prerequisite: 322 and consent of department.

**423-3 Reconstruction of Color.** A study of the principle of color separation in photography as it relates to the processes of dye transfer, silkscreening, lithography, letter press, etching, and other reproduction processes. Students purchase texts and provide photographic materials and chemicals. \$15 cost for additional laboratory materials. Prerequisite: 322.

**425-3 to 9 Studio Workshop.** An intensive workshop focusing on current trends in photography. Topics have included landscape photography, architectural photography, environmental portrai-



ture, and imagemaking, among others. Students provide photographic materials and may purchase texts. Laboratory fee. Prerequisite: 322 or consent of department.

**426-3 Non-Silver Photography.** Intensive introduction to hand-applied emulsions of cyanotype, vandyke brownprinting, gum printing, etc. Students purchase materials and may purchase texts. Laboratory fee. Prerequisite: 322 and consent of department.

**449-3 Survey of Film History.** Intensive study of major historical periods of the cinema, including technological developments, national cinema movements, sociological and aesthetic determinations, and concerns of film historiography. Prior completion of 349 and 360 is strongly recommended. Screening fee.

**452-3 Film Planning and Scripting.** The screenplay as a basis for production. Practice in preparing film plans, treatments, storyboards, and scripts. Examination of the film industry. Prerequisite: 355 or consent of department.

**454-3 Animated Film Production.** Practical course for visual expression related to the graphic film; symbology, composition, kinestasis, animation, typography, color and materials. Students purchase texts and materials. Prerequisite: 355 and either 465 or consent of department.

**455-3 Film Production III.** Advanced production by individuals or crews of 16mm sound films from pre-production through shooting. Intensive study of budgeting, production planning, scripting, casting, location and studio shooting techniques, equipment rental, lighting, and double system sound filming. Students provide film stock, processing and sound materials. Prerequisite: 356, 452 and consent of department.

**456-3 Film-Production IV.** Continuation of 455 through editing and post production to a first answer print. Intensive study of editing, sound mixing, laboratory procedures and distribution problems. Students provide expendable editing and sound materials and are responsible for laboratory costs. Prerequisite: 455 and consent of department.

**462-3 History of the Documentary Film.** Study of the development of the non-fiction film with emphasis on the documentary. Screening fee. Students purchase texts.

**463-3 History of the Experimental Film.** Study of experimentation in cinema from the turn of the century to contemporary avant-garde films. Screening fee. Student purchase texts.

**465-3 History of the Animated Film.** Study of the history, techniques, and aesthetics of the graphic/animated film. Students purchase texts. Screening fee.

**466-3 to 6 (3, 3) Film Styles and Genres.** Intensive study of specific body of films grouped by similarities in style, genre, period and cultural origin. Emphasis of historical, theoretical, and critical issues. Topics vary each semester. Sample topics: the Western; the French new wave; Third World cinema; Surrealism in film. Screening fee.

**467-3 to 6 (3, 3) Film Authors.** Intensive study of the work of one or more film authors (directors, screenwriters, etc.). Emphasis is on historical, theoretical, and critical issues. Topics vary each semester. Sample topics: the films of Alfred Hitchcock, the films of Jean Renoir. Screening fee.

**468-3 Advanced Film Theory and Analysis.** An intensive study of contemporary film theory with an emphasis on the application of analytic models. Focus is on structural, semiotic, and psychoanalytical theory of the cinema, and the textual analysis of specific films. Screening fee. Prerequisite: 368 or graduate standing.

**470-3 to 9 (3, 3, 3) Advanced Topics.** An advanced course concentrating on special topics in cinema and photography. (a) Advanced studies in cinema history/theory. Topics offered have been the information film, feminist and ideological criticism of film. (b) Advanced topics in film production. Topics offered included motion picture sound workshop, narrative film workshop. (c) Advanced studies in photography. Topics offered have included publication and presentation, the figure, multi-image, fantasy photography among others. (d) Advanced studies in interdisciplinary topics. Not more than six semester hours may be counted for graduate credit. Screening/lab fee. Prerequisite: consent of department.

**471-3 to 6 (3, 3) Problems in Creative Production: Photography.** Conceptual exercises involving different characteristics of the medium. Emphasis is placed upon individual creative response to assignments. Topics vary; may be repeated for a total of 6 credits. Prerequisite: consent of department.

**472-3 to 6 (3, 3) Problems in Creative Production: Cinema.** An intensive examination, through readings, screenings, and filmmaking, of a cinematic genre, style, movement, or technical challenge. Theory is combined with practice, resulting in a group film production. Previous problems studied have been the pseudo-documentary, 35mm filmmaking, and film as performance. Topics may vary; may be repeated for a total of 6 credits. Prerequisite: consent of department.

**491-1 to 9 Individual Study in Cinema or Photography.** Research in history, theory or aesthetics. Usually taken 3, 3, 3. Not more than 9 semester hours of 470, 491, 495, and 497 combined may count toward the first 38 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department.

**492-1 to 3 Practicum.** Practical experience in the presentation of photographic theory and procedures. Does not count toward the first 38 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.

**495-1 to 12 Internship in Cinema or Photography.** Credit for internship with professional film or photographic units. Not more than 9 semester hours of 470, 491, 495 and 497 combined may count toward the first 38 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.

**497-1 to 9 Projects in Cinema or Photography.** Individual or crew projects in motion picture production or still photography. Usually taken 3, 3, 3. Additional laboratory materials costing \$15 required for all photography projects. Not more than 9 semester hours of 470, 491, 495, and 497 combined may count toward the first 38 hours for the B.A. in cinema and photography. Not for graduate credit. Prerequisite: consent of department.

**499-4 Senior Thesis.** Preparation of a film, critical or research paper under the supervision of a cinema and photography faculty member. Normally taken during last term in residence, the senior thesis is evaluated by the departmental faculty. The department will retain one copy of all theses. Students interested in producing a film for 499 should have completed 355, 356, 368, 452, and nine hours of cinema history courses. Not for graduate credit. Prerequisite: consent of department. Mandatory Pass/Fail.

**541A-3 Seminar: History of Photography, 1839 to World War II.**

**541B-3 Seminar: Contemporary History of Photography.**

**542A-3 Seminar in Film History: American.**

**542B-3 Seminar in Film History: International.**

**574-3 Contemporary Theory and Analysis of Cinema.**

**575-6 (3, 3) Contemporary Theory and Analysis of Photography.**

**591-1 to 6 Individual Study in Cinema and Photography.**

**595-1 to 4 (1, 1, 1, 1) Graduate Seminar.**

**597-1 to 16 MFA Projects.**

**598-1 to 6 MFA Final Creative Project.**

**601-1 to 12 per semester Continuing Research.**

## Clothing and Textiles

(SEE VOCATIONAL EDUCATION STUDIES)

## Coaching (Minor)

(SEE PHYSICAL EDUCATION)

## Commercial Graphics – Design (Program, Major, Courses)

The advertising business is a growing field, presenting ever increasing opportunities for men and women who have creative and artistic ability. Trained people are needed to develop story illustrations, advertising layouts, billboard design, point-of-purchase displays, package designs, direct mail pieces, annual report designs, television commercials title cards, finished lettering, fashion illustrations, air-brush and photo-retouching, and many others.

Students in this program develop multiple art skills so they may qualify for initial positions in many different areas of advertising art and design. Each individual has a base upon which to build a career according to personal special interests and talents.

Each graduating design student is required to pass, with 90% accuracy, a vocabulary proficiency test and to have compiled a professionally acceptable portfolio of work.

The student should expect to spend approximately \$1,000 to \$1,300 for supplies, equipment, and materials over a two year period.

An advisory committee whose members are active in the advertising and graphic design professions assist the program and students in professional development.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experience.

An individual must first be accepted academically to the university, present a portfolio of required pieces, and participate in a workshop drawing test. The 60 best qualified will be invited to enter the program the following fall.



Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Commercial Graphics-Design

GE-B 200-level .....	3
GE-D 101, 153 .....	6
School of Technical Careers 102 .....	2
Commercial Graphics 110, 120, 122, 124, 130, 132, 133, 134, 210, 215, 222, 224, 230 .....	61
Commercial Graphics 150 or Photographic Production Technology 109 .....	2
Total .....	74

Courses

**101-3 Fundamentals of Drawing for Commercial Graphics – Design.** An introduction to the materials and techniques utilized in graphic design and illustration. The basic elements of art and design will be identified and incorporated in a series of exercises designed to acquaint students with the concepts, processes, and skills needed by professionals employed in the commercial graphics field.

**110-3 Survey of Graphic Design.** The student will be introduced to the events and processes through which the specialized field of graphic design has evolved to attain its present form. The relationships between the visual arts and communications technology and the significant advances in these areas will be examined in a three hour lecture format.

**120-4 Artistic Anatomy and Color Perception I.** Students will demonstrate an ability to understand and use pigmental and light ray color theory and practical application. Students will also demonstrate a knowledge of the bones and muscles of the human anatomy by way of examination and further demonstrate their comprehension and talent by way of artistically and accurately drawing the figure from life. Student will also demonstrate an ability to design, organize, and structure through compositional arrangement. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 122 and 124.

**122-4 Technical Drawing for Graphics.** Students will demonstrate an ability to understand and utilize the proper point of perspective in illustration and to use the T-square, triangle, and drawing instruments in precisely executing geometric forms, mechanical, and industrial illustration. In addition, students will demonstrate an ability to render objects on scratchboard: the utilization of zipatone patterns and the proper use of the ruling pen to accurately execute ruled business forms. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 124.

**124-4 Graphic Layout and Typography I.** Student will demonstrate an ability to use the basic principles of layout, how to do thumbnails, roughs, and clear accurate comprehensives. They will also demonstrate an understanding of basic lettering styles and techniques with chisel point pencil. They will demonstrate an ability to understand the history and practical uses of typography in advertising. Lecture two hours. Laboratory three hours. Prerequisite: concurrent enrollment in 120 and 122.

**126-2 Fundamentals of Drawing and Composition.** For non-majors. The student will demonstrate awareness of perspective, light and shade, color theory and application, and composition through basic drawing techniques. Lecture one hour. Laboratory two hours.

**128-2 Fundamentals of Graphic Processes.** The student will be made aware of the various principles and styles of layouts, letter forms and typography and prepare mechanicals to demonstrate a knowledge of the various printing methods. The student must supply all materials used. Lecture one hour. Laboratory two hours. For non-majors.

**130-4 Artistic Anatomy and Color Perception II.** The student will continue to demonstrate knowledge and artistic ability of the human anatomy in the development of advertising, illustration, fashion illustration, and by way of modification the development of the cartoon figure. Lecture two hours. Laboratory three hours. Prerequisite: 120, 122, and concurrent enrollment in 132 and 134.

**132-4 Airbrush and Photo Retouching.** The student will demonstrate development of skills in the operation and techniques of airbrush rendering used for mechanical and illustrative purposes, and in addition, will retouch black and white photographs suitable for reproduction. Lecture two hours. Laboratory three hours. Prerequisite: 120 and 122 and concurrent enrollment in 130 and 134.

**133-1 Copyfitting.** The student will demonstrate an ability through discussion and examination to properly solve copy fitting problems, specify how many lines a given manuscript or ad will set, how deep, how many pages in any given format, and to calculate the number of characters per pica and per line. Lecture one hour. Prerequisite: concurrent enrollment in 134.

**134-4 Graphic Layout and Typography II.** The students will demonstrate their ability through discussion and examination to identify at least 14 different type faces on sight. In addi-



tion, they will demonstrate an ability to prepare clean, accurate, professional, quality paste-up, keylines with overlays, and separations. They will demonstrate an ability to work with offset lithography, letter press, gravure, and silk screen printing processes. Lecture two hours. Laboratory three hours. Prerequisite: 122 and 124, and concurrent enrollment in 130, 132, and 133.

**150-2 Computer Applications for Commercial Graphics Design.** Introduction to microcomputer-based techniques. Includes a survey of history and current computer generated graphics. The student will become familiar with basic computer operation and keyboard, and develop business graphics visuals in full color to be produced on 35mm film. Programming not required. Incidental expenses not to exceed \$15. Prerequisite: 120, 122, 124, or consent of department.

**200-1 to 2 (1, 1) Artfair Exhibition.** Students will receive practical experience in the coordination and development of an art exhibition. They will participate in the development of announcements, mailers, cataloging, scheduling news releases, receiving of entries, security, and returning procedures. They will develop a systems flow chart for the effective and smooth operation of an exhibition including hands-on operation of exhibit construction and location. Laboratory three hours.

**210-8 Advertising Graphics.** Students will demonstrate their ability in the preparation of professional assignments in lettering, logo, and letterhead design and the development of line art and cartoons for advertising illustration. In addition, students will have their work selected for production on various client-oriented projects. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, and 134 and concurrent enrollment in 224.

**215-8 Dimensional Design.** Students will demonstrate their ability to research and analyze information to create a precise original concept and to visually render point-of-purchase displays, exhibits, signs, and package designs. Lecture four hours. Laboratory six hours. Prerequisite: 210, 224, and concurrent enrollment in 222.

**222-8 Graphic Design and Advertising Illustration.** Students will demonstrate their ability to prepare professionally acceptable assignments in poster panels and billboard designs, diecut tent cards, folder designs and multi-unit advertising, and advertising and cover illustration. Lecture four hours. Laboratory six hours. Prerequisite: 210, 224, and concurrent enrollment in 215.

**224-8 Publication Graphics.** Students will demonstrate their ability to create new and unusual concepts in advertising layout and design, folder design, color keys, marking up copy, and doing complete production art. Contemporary techniques in design and production will be emphasized. Students also have the opportunity to have work selected for production on various client-oriented projects. Lecture four hours. Laboratory six hours. Prerequisite: 130, 132, 134, and concurrent enrollment in 210.

**230-1 Job Orientation Seminar.** Students will demonstrate a knowledge through discussion and examination of the operations of large and small agencies and studios including the various responsibilities of the people employed in them by class discussion and examination. Prospecting for employment, working conditions, prospects for advancement, how much an artist should charge for a piece of art, and the legal responsibilities of the artist-designer to the client-agency will be discussed. Students will conclude this course with the presentation of a portfolio demonstrating their ability to do professional quality work (at least 10 plates) and will have acquired the experience of being interviewed for an artist position. Lecture one hour.

**240-3 to 12 Special Study.** A student with a special interest in a particular advertising art or graphic design area will be selected projects and research to develop additional professional skill. Requires approval of the program supervisor. Lecture three hours. Laboratory 24 hours maximum.

**310-6 (3, 3) Advanced Illustration for Commercial Graphics – Design.** Provides the student with the opportunity for advanced studies in methods and techniques used by recognized illustrators in the development of fiction and non-fiction story visualizations. (a) Visual development. To depict the climax or visually stimulating moment of the story through the use of thumbnails, roughs, value studies and to secure models, costumes, props, etc., as may be needed to photograph for rendering studies. (b) Renderings to be in any medium approved by the faculty sponsor. Number of projects to be determined by complexity of each. Student must have access to a 35mm SLR camera and tripod. Prerequisite: 120 and 130 or permission of coordinator.

**312-6 (3, 3) Advanced Airbrush/Technical Illustration for Commercial Graphics – Design.** Provides the opportunity for advanced studies in methods and techniques used in airbrush and technical illustration. (a) Perspective or isometric projections rendered in ink, overlay films, or airbrush. (b) Airbrush rendering of commercial advertising or products. Students will be required to complete a specific number of projects that lead through the production to a finished commercial rendering, from concept to touch-up, based on the complexity of each as determined by the sponsoring faculty member. Must have own airbrush and portable compressor. Prerequisite: 122 and 132 or permission of coordinator.

**350-3 Advanced Computer Applications for Commercial Graphics – Design.** Provides an opportunity for the advanced study of artistic and technical solutions for commercial graphic problems using the computer as a tool. Demystifies computer graphics for artists and designers and helps them use computer graphics in their work. Hands-on computer painting is explored as well as a library of type fonts. An understanding of commercial graphic print tools and color separation are studied and used. Animation and special effects may be created and saved on a disk. Lecture



one hour/laboratory three hours. Expenses approximately \$25. No programming required. Prerequisite: 150 and associate degree in commercial graphics or consent of coordinator.

# Communication Disorders and Sciences (Department, Major, Courses)

The program in communication disorders and sciences has as its objective the training of qualified personnel to aid people who are speech, language, or hearing impaired. The undergraduate curriculum is broad in scope and gives the student the necessary preprofessional background for the clinical-research program offered at the master's level. Both state and national certification require the master's degree. Students who complete the graduate program at the master's level are qualified for positions in public or private clinics, schools, hospitals, or agencies. Students who complete the graduate program at the doctoral level seek positions with college and universities, research institutes, or governmental agencies.

The Department of Communication Disorders and Sciences is dedicated to developing students for leadership roles in the profession. Students are expected to develop programs that will enhance their individual strengths in light of their vocational goals. The undergraduate program is extremely flexible. This permits students to develop significant concentration areas outside of the department while they are laying the foundation for their graduate education.

Observation and beginning clinical experience is obtained at the undergraduate level through work at the University's clinical center and area clinics, schools, and agencies. The undergraduate program is designed to provide the student with sufficient information and experience to determine the advisability of pursuing a graduate degree. Those students who do not continue in the profession will find themselves well prepared to enter the job market with a broadly based education or pursue graduate work in allied professions.

All students are encouraged to plan programs of study to meet the academic and practicum requirements for the Certificate of Clinical Competence of the American Speech-Language-Hearing Association or the Standard Special Certificate – Certificate in Speech and Language Impaired of the state of Illinois. Planning at the bachelor's level will facilitate completion of American Speech-Language-Hearing Association and State of Illinois certification requirements in conjunction with the master's degree program.

<b>Bachelor of Science Degree, College of Communications and Fine Arts</b>	
COMMUNICATION DISORDERS AND SCIENCES – PREPROFESSIONAL PROGRAM	
<i>General Education Requirements</i> . . . . .	45
Including GE-A 115; GE-B 108 and 202; GE-D 101, 117, 107, and 152 or 153.	
<i>Requirements for a Major in Communication Disorders and Sciences</i> . . . . .	50
Psychology 211, 301, 305 . . . . .	10
Rehabilitation 406 . . . . .	3
Communication Disorders and Sciences 105, 200, 203, 214, 302, 303, 307, 311, 316, 318, 392, 393, and 419 . . . . .	37
<i>Electives by Adjustment</i> . . . . .	25
If the education option is not selected, electives must include 12 additional semester hours of psychology selected from the following courses: Psychology 307, 309, 311, 314, and 411. The remaining 13 hours selected from 408, 420 and by advisement.	
<i>Total</i> . . . . .	120

**Bachelor of Science Degree, College of Communications and Fine Arts  
or Bachelor of Science Degree, College of Education**

A student in the College of Communications and Fine Arts or the College of Education who plans to be a public school speech and language clinician in Illinois, thereby needing to prepare to meet the requirements for the Standard Special Certificate – Certificate in Speech and Language Impaired, should follow the program of course requirements listed above. In addition the requirements for the Teacher Education Program must be completed as part of the electives by advisement.

The student teaching requirement and related seminar, may not be undertaken until completion of two additional requirements: 1) 9 semester hours (3 courses) selected from 505, 507, 510, 512, and 420; and 2) 70 clock hours from at least four credit hours from the following practicum courses: 494 and 496. See also Teacher Education Program, page 83.

**Courses**

**100-0 to 1 Speech Clinic: Therapy.** For students with speech and hearing deviations who need individual help. Prerequisite: consent of instructor.

**104-3 Training the Speaking Voice.** For those students who desire to improve their voice and articulation.

**105-3 Introduction to Communication Disorders.** A general survey course devoted to a discussion of the various problems considered to be speech and hearing disorders with special emphasis on basic etiological classification schemes and their incidence in the current population. Opportunities for directed observation.

**200-3 Phonetics.** Instruction in the use of phonetic symbols to record the speech sounds of midland American English, with emphasis on ear training, and a description of place and manner of production of these sounds. Program retention course.

**203-3 Introduction to Speech-Language and Hearing Science.** An introduction to the science of general speech including the history of research in the field and significant experimental trends in the future. Open to all students. Program retention course.

**214-3 Anatomy and Physiology of the Speech and Hearing Mechanism.** Structure and function of the speech and hearing mechanism. Program retention course.

**285-3 Computer Technology in Communication and Fine Arts: Basic Literacy.** An introduction to the basic terminology, concepts and most recent techniques being used in the various areas of the College of Communications and Fine Arts. A foundation course to prepare students for the impact of computer technology in the professional lives of those who work in the occupational settings represented within the college.

**302-3 Phonological Development and Disorders.** A general introduction to the phonological development in children on a normative basis. In addition to introducing the student to the classical studies in articulatory development, this course provides a general exposure to the implications of classical phonetic theory, coarticulatory theory and distinctive features theory as a framework for therapy and research. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of chairperson.

**303-3 Language Development and Disorders.** Presentation of the progressive stages of language development in the areas of syntax and semantics. The student is acquainted with normal developmental processes and introduced to identification and remediation of therapeutics with children from ages three to twelve. Theoretical considerations and terminology related to traditional structural and transformation grammars are introduced as tools for interpreting the acquisition processes. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of instructor.

**307-3 Introduction to Organics.** An introduction to the organic bases of communication disorders. An emphasis will be placed on the foundations of development and teratological events and influences which result in specific communication disorders, and overview of those disorders, and their implications for the individual. Observations as directed. Prerequisite: 214 or consent of instructor.

**311-3 Research Methods in Communication Disorders and Sciences.** Introductory survey of research methods and techniques used in speech language and hearing.

**316-3 Introduction to Audiology and Audiometry.** Basic orientation to the professional field of audiology, its history and its goals; basic acoustics, the phylogeny, anatomy and physiology of the human ear, and significant pathologies of the ear. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of instructor.

**318-3 Parameters of Voice.** Physio-acoustic parameters of voice quality variables evidenced in verbal communication. Lectures and demonstrations emphasize basic information necessary to study for the treatment of voice disorders. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of instructor.



**319-3 Stuttering.** Deals with diagnostic and therapeutic techniques for the understanding and treatment of stuttering. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of instructor.

**392-3 Diagnostic Procedures in Communication Disorders.** A general introductory course devoted to discussion of the role of the speech and learning clinician as a differential diagnostician. Special emphasis is placed on correlating information obtained from the oral-peripheral examination, articulation and language evaluation, audiometric and case history information in constructing the initial evaluation report. Prerequisite: 302, 202, and one additional 300-level course or consent of chairperson.

**393-1 to 2 (1, 1) Basic Clinical Practice: Principles and Procedures.** Supervised clinical practicum in basic theory procedures, diagnostic techniques, and preparation of reports. Prerequisite: 302, 303, and two additional 300-level courses or equivalents or consent of chairperson.

**408-3 Communicative Disorders: Craniofacial Anomalies.** An introduction to the ontology, teratology, and management of cleft palate and various craniofacial syndromes important to majors and non-majors interested in this aspect of communication and its disorders. Associated problems of personal and social adjustments are also examined. Prerequisite: 105, 214, 318, or consent of instructor.

**419-3 Communication Problems of the Hearing Impaired.** Objectives and techniques for the teaching of lip reading, speech conservation, and auditory training. Prerequisite: 302, 303, and 316, or equivalents and consent of instructor.

**420-3 Introduction to Audiological Disorders and Evaluation.** Bases of professional field of audiology (orientation, anatomy, and physiology of the auditory system), major disease processes influencing hearing and their manifestations, measurement of hearing loss. Prerequisite: 3.0 grade point average in program retention courses or concurrent enrollment and consent of instructor or graduate standing.

**428-3 Communication Disorders and the Classroom Teacher.** Etiology and therapy of common speech defects. May be taken by all inservice teachers, seniors, and graduate students in education.

**431-1 to 6 (1 to 3, 1 to 3) Biofeedback Communications.** An investigation into the experimental approaches for the study of the phenomena of speech. Evoked potential and signal averaging techniques, psychophysiological methodology. Laboratory experience with various biofeedback instrumentation, EMG, EEG, temperature ECG, etc. Open to nonmajors.

**438-2 Problems of Communication and the Process of Aging.** Reviews problems of communication related to the aging process and examines relevant diagnostic and therapeutic techniques. For non-majors only. Prerequisite: senior or graduate standing.

**450-3 Neuroanatomical Basis of Human Communication.** Examination of the central nervous system (brain and spinal cord) as it relates to normal and disordered human communication. Presentation of basic neuroanatomy, common neuropathologies relevant to communication disorders, and strategies in neurogenic problem solving. Prerequisite: 214, 307, or consent of instructor.

**485-1 to 3 Special Topics in Communication Disorders and Sciences.** Topical presentations of current information on special interests of the faculty not otherwise covered in the curriculum. Designed to promote better understanding of recent developments related to disorders of verbal communication. Open to advanced undergraduate and graduate students with consent of instructor.

**491-1 to 4 (1 to 2, 1 to 2) Individual Study.** Activities involved shall be investigative, creative, or clinical in character. Must be arranged in advance with the instructor, with consent of the chairperson. Prerequisite: consent of chairperson.

**494-1 to 12 (1 to 4 per section) Advanced Clinical Practice: Speech/Language.** Advanced clinical practicum in (a) articulation and phonology, (b) language disorders, (c) voice disorders, and (d) fluency disorders. Emphasis will be placed on specialized therapy procedures, diagnostic techniques, and the preparation of reports. Prerequisite: for (a), 302, 393 and 393 or equivalent and consent of chairperson; for (b), 303, 392 and 393 or equivalent and consent of the chairperson; for (c), 318, 392 and 393 or concurrent enrollment or equivalent and consent of the chairperson; for (d), 319, 392, 393 or equivalent and consent of the chairperson.

**496-1 to 2 (1, 1) Advanced Clinical Practice: Hearing Disorders.** Advanced clinical practice in hearing disorders. Emphasis will be placed on rehabilitative procedures in audiology. Prerequisite: 316 and 493 or equivalents and consent of chairperson.

**497-1 to 2 (1, 1) Advanced Clinical Practice: Hearing Diagnostics.** Advanced clinical practice in hearing diagnostics. Emphasis will be placed on diagnostic techniques used in the preparation of basic and advanced audiological reports. Prerequisite: 316, 420, and 493 or equivalents and consent of chairperson.

**500-3 Research Design in Speech Pathology and Audiology.**

**503-3 Laboratory Instrumentation in Speech-Language and Hearing Science.**

**505-3 Phonological Acquisition.**

**507-3 Language Acquisition.**

**510-3 Stuttering: Behavior Assessment and Therapy.**

**512-3 Voice Disorders.**

**517-3 Seminar: Language Disorders in Children.**

**521-3 Audiology II: Peripheral and Central Auditory Tests.**

**525-3 Amplification for the Hearing Impaired.**

526-3 Audiology III: Objective Procedures and Hearing Conservation.  
 528-3 Seminar: Physio- and Psycho-Acoustics of the Ear.  
 530-3 Aural Rehabilitation/Auditory Perceptual Disorders.  
 533-3 to 6 (3, 3) Seminar: Speech and Auditory Perception.  
 536-3 Seminar: Administration of Speech and Hearing Programs.  
 540-3 Neurogenic Disorders of Communication I.  
 541-3 Neurogenic Disorders of Communication II.  
 544-3 Seminar: Phonological Disorders in Children.  
 548-3 Seminar: Stuttering Behavior – Theory and Research.  
 550-1 to 6 (1 to 3, 1 to 3) Professional Training Seminar.  
 590-1 to 4 (1 to 2, 1 to 2) Readings in Speech-Language Pathology and Audiology.  
 593-1 to 3 Research Problems in Speech-Language Pathology and Audiology.  
 598-1 to 3 Internship in Speech-Language Pathology and Audiology.  
 599-1 to 6 Thesis.  
 600-1 to 32 (1 to 16 per semester) Dissertation.  
 601-1 to 12 per semester Continuing Research.

## Communications and Fine Arts (College, Courses)

### Courses

**397-1 to 6 Special Interdisciplinary Study.** Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

**497-1 to 6 Special Interdisciplinary Study.** Designed to offer and test new and experimental courses and series of courses within the College of Communications and Fine Arts. Prerequisite: consent of instructor.

## Community Development (Major [Graduate only], Minor, Courses)

In recognition of major national legislation in community development and the growing need for informed leaders and trained practitioners at the community level in many fields, this minor has been developed.

Requirements: 15 semester hours, including 401 and at least 6 additional hours selected from community development courses and 6 more hours from community development courses or from courses closely related to the community development field offered in other departments. A list of approved courses is available from the community development office. If students receive credit in their major for any of these courses, it may not also be counted toward their community development minor.

### Courses

**200-3 The Nature of Community.** Human communities have existed since pre-history, but the nature of what a community is, should, or could be remains a subject of wide debate. The purpose of this course is to clarify some of the issues of this debate by examining some of the ways that communities have changed since prehistoric times as well as the different philosophies and theories of community, both past and present, and also by identifying those aspects and elements of community life that appear common to all human communities.

**201-3 Communes and Communities: Experiments Past and Present.** Throughout recorded history various individuals have envisioned, and various groups have deliberately sought to establish, communities that differed greatly from the conventional communities of the time. Some, like the medieval monastic orders or the "Bruderhoffs" of today, have been remarkably durable; but many have failed. In this course, the history and philosophy of experimental and intentional communities from monasteries to communes will be reviewed with the object of better understanding the social conditions that give birth to such communities and those conditions that appear to either enable or inhibit their survival.

**202-3 Communities of the Future.** The focus of this course will be on problems of and solutions to the creation and maintenance of human settlements and the interdependence of social, cultural, and economic elements. Problems of crime, disease, health, moral issues, government control, population, migration, and others will be explored against a background of innovative, technical and utopian social ideas about communities of the future.

**295-1 to 6 Field Service Practicum in Southern Illinois.** (Same as Social Work 295.) This



course is designed for freshmen and sophomores who are volunteering service to community, social service, or health service agencies in southern Illinois. Credit based upon time spent in direct service. Approval of agency required for registration. Mandatory Pass/Fail.

**302-3 Community Self-Study.** An introduction to problem analysis and needs assessment. The self-study approach, pioneered by the Southern Illinois University at Carbondale community development program, enables citizens in small towns and social and economic groups in urban areas to identify needed changes harmonious with their values. Examines the community self-study method and applications to current problems.

**401-3 Introduction to Community Development.** This course surveys the field of community development, an applied social science that encourages self-reliance by generating change and growth strategies for groups and communities. The course focuses on the history and philosophy of community development, citizen rights issues, change techniques, value dilemmas confronting change agents, and examination of some current community development programs.

**402-3 Third World Community Development.** Analysis of the history, goals, methods, and techniques of socioeconomic development in the Third World countries. Cultural, economic, social structural, political, and administrative factors in development and in the process of community organization are discussed. Case studies from Africa, Asia, and Latin America.

**403-3 Community Organization.** An examination of basic approaches to community organization used by change agents and human service workers. Special emphasis is placed on sensitizing students to consumer participation issues.

**404-3 Role Theory and Analysis in Community Development.** The focus of this course is on role theory and methods of analysis. The student will gain considerable exposure to the techniques of role analysis as an evaluation tool in community development training and program development.

**405-3 Social Planning.** Introduction to the methods, practices, functions, and ethics of social planning in the United States, including a critical perspective. Criminal justice, health, manpower, welfare, and other sectors of social planning will be discussed to illustrate the principles of social planning.

**489-3 Field Service Seminar.** (Same as Social Work 489.) This seminar is to be taken concurrently with 495 or Social Work 495. May not be taken for credit if credit has been earned in 289 or Social Work 289. Prerequisite: consent of instructor.

**491-1 to 6 Independent Study in Community Development.** Supervised individual study and projects in keeping with the needs of each student. Prerequisite: consent of instructor.

**495-1 to 6 Advanced Field Service Practicum in Southern Illinois.** (Same as Social Work 495.) This course is directed at upperclassmen and graduate students volunteering service to community, social science, or health agencies in southern Illinois. Credit based on time spent in direct service. Approval of agency required for registration. May not be taken for credit if credit has been earned in 295 or Social Work 295. Mandatory Pass/Fail for undergraduates.

**497-1 to 12 (1 to 3 per topic) Seminar in Community Development.** The identification and analysis of special problems in community development. (a) Project funding, evaluating, and reporting; (b) Central and peripheral systems in community development; (c) Community development cooperatives and credit unions; (d) Research problems and methods; (e) Special problems. Credit limited to not more than three per topic and not more than 12 total.

**500-3 Research Seminar in Community Development.**

**501-4 Small Group Process in Community Development.**

**502-3 Community and Change.**

**503-3 Community Development Practice.**

**589-2 Community Development Internship Seminar.**

**593-1 to 6 Individual Research in Community Development.**

**595-1 to 8 Internship.**

**599-1 to 6 Thesis Research.**

**601-1 to 12 per semester Continuing Research.**

## Comparative Literature (Minor)

A comparative literature minor is available within the College of Liberal Arts. The program is directed by the comparative literature adviser in either the Department of English or the Department of Foreign Languages and Literatures. The minor consists of 18 hours of course work at or above the 300-level in literature other than those in which the student is majoring.

## Computer Information Processing (Program, Major, Courses)

The growth of information processing in both the expansion of installations and

the complexity of hardware and software has increased the need for competent information processing personnel. The curriculum in computer information processing at the School of Technical Careers prepares students for employment as business computer programmers and systems analysts. Skills which the graduate obtains include competency in programming languages such as COBOL, RPG, and Assembler and associated areas such as accounting and systems design.

Students enrolled in the program have access to a modern large scale IBM computer with batch and interactive facilities, a Prime computer and terminal lab, and an IBM PC lab. The hardware and software configurations are representative of large computer installations in industry. The data center is available for student use approximately 100 hours each week.

The associate degree program can be completed in two academic years at Southern Illinois University or in combination with community colleges or other acceptable extra-institutional educational experiences. Students beginning the program in the spring semester may require five semesters to complete the degree. Students should plan to spend small amounts for special laboratory materials.

Students completing this program may seek employment as entry level business applications programmers and systems analysts, or may continue their studies by enrolling in a bachelor's degree program, such as the advanced technical studies program in the School of Technical Careers. Students whose interests lie in systems programming, rather than business applications programming and systems analysis should consider the computer science program, which is a more theoretical approach and requires a more extensive mathematics preparation.

An advisory committee of professional people and educators meet annually on campus to review the program to assure its continuing responsiveness to the current needs of industry.

### **Associate in Applied Science Degree, School of Technical Careers**

#### *Requirements for Major in Computer Information Processing*

GE-D 101, 118, 152 or 153 .....	8
School of Technical Careers 120 and 220 or Accounting 210 or 220 .....	3-6
Computer Information Processing 101, 102, 103, 111, 121, 131, 212, 213, 222, 232, 233, 281 each with a minimum grade of C .....	40
Approved social and technical electives (list available) .....	9
<b>Total</b> .....	<b>60-63</b>

#### **Minor**

A minor in computer information processing consists of 20 semester hours with 9 in core courses, 6 in other computer information processing courses, and 5 in approved electives.

Core Courses: Computer Information Processing 101 or 109, 102 or

equivalent, 111 .....

Any other two computer information processing courses, except 103 .....

Approved Electives: To be selected from a list available in the department ..

All prerequisites must be satisfied for computer information processing courses taken for the minor.

#### **Courses**

**101-3 Introduction to Information Processing.** The successful student should be able to demonstrate an understanding of basic terminology, procedures, applications, and equipment used in information processing. Topics covered will range from simple computer processing techniques to advanced contemporary applications. Credit cannot be given for both 101 and 109. Lecture three hours. Restricted to majors and minors.

**102-3 Introduction to Programming.** The successful student should be able to flowchart and code logical solutions to business data, processing problems using general approaches to totaling,



table processing, and file updating. Lecture three hours. 101 or concurrent enrollment or equivalent.

**103-3 Information Processing Mathematics.** The successful student should be able to use various types of logic diagrams, such as flow charts and truth tables to solve problems; to work problems using basic algebra, business mathematics, number bases, and related concepts. Lecture three hours. Prerequisite: high school algebra.

**109-3 Information Processing Concepts.** The successful student should be able to demonstrate an understanding of basic terminology, procedures, applications, and equipment used in information processing. Topics covered will range from simple computer processing techniques to advanced contemporary applications. Credit cannot be given for both 101 and 109. Lecture three hours. Intended for nonmajors.

**111-3 Cobol Programming I.** The successful student should be able to flowchart, code, and run a variety of simple problems using disk input, disk and printer output, control breaks, and one dimensional tables. Lecture three hours. Prerequisite: 102.

**121-3 RPG Programming.** The successful student should be able to code and run a variety of business problems in the Report Program Generator language with disk and printer files, multiple record formats, multiple file input, tables, arrays, matching records, and selected special features. Lecture three hours. Prerequisite: 102.

**131-3 Information Processing Applications.** The successful student will demonstrate by examination a general knowledge of processing procedures and terminology for basic business applications such as billing, accounts payable and receivable, inventory control, and payroll. In addition, the successful student will implement selected business procedures on microcomputers using appropriate applications software packages, such as word processing, data base, and spread sheets. Lecture three hours.

**212-3 COBOL Programming II.** The successful student should be able to flowchart, code, and run a variety of complex problems using disk and printer files and advanced COBOL language features. Lecture three hours. Prerequisite: 111 or equivalent.

**213-6 Information Processing Project.** The successful student will design and implement a minisystem for a problem approximating the type encountered in industry by entry-level programmers. The student draws upon knowledge gained in previous courses and develops an understanding of how the various subject matter fits together. Lecture three hours. Independent laboratory four hours. Prerequisite: 212, 232, 233 or consent of instructor.

**222-4 Assembler Programming.** The successful student should be able to code and run a variety of business oriented problems using disk and printer files, character, decimal, and binary instruction sets, table/array processing, and subroutines. Lecture four hours. Prerequisite: two prior programming classes or consent of instructor.

**229-3 Computing for Business Administration.** The successful student will acquire an understanding of how computers may be used to process business data through programming a variety of business related problems in a programming language. Emphasis is on the computer as a management tool. Lecture three hours.

**232-3 Systems Design and Development.** The successful student will demonstrate in class discussion, on examinations and by preparing a case study the ability to design an effective business information processing system, including system flow chart, specifications, feasibility, implementation procedure, and essential documentation. Lecture three hours. Prerequisite: 111 and 131 or consent of instructor.

**233-4 Job Control Language and Utilities.** The successful student will demonstrate by examination an understanding of operating systems, and should be able to code and run problems involving JCL statements and utility programs to create, edit, sort, copy, and execute files. Lecture four hours. Prerequisite: 111 or consent of instructor.

**280-1 to 8 Information Processing Internship.** The successful student will study, observe and participate in a practical experience closely related to and supplementing studies in information processing. Hours and credit arranged individually. May be repeated for credit up to eight hours total. Prerequisite: consent of department. Mandatory Pass/Fail.

**323-3 Pascal Programming.** The successful student should be able to code and run a variety of business problems in Pascal with disk and printer files. Programs range from simple to complex problems employing a variety of language features and business related programming techniques. Lecture three hours. Prerequisite: two programming courses or consent of instructor.

**334-3 Database Processing.** The successful student will demonstrate by examination an understanding of database terminology, structure, languages, implementation, and administration. Lecture three hours. Prerequisite: 212 or consent of instructor.

**335-3 Data Communications.** The successful student will demonstrate by examination an understanding of concepts and vocabulary related to designing, implementing, and maintaining communication networks. Lecture three hours. Prerequisite: 212 or consent of instructor.

## Computer Science (Department, Major, Courses)

The Department of Computer Science offers courses covering the major areas of

computer science. These courses constitute the basis for an undergraduate major which prepares students for a variety of professional and technical careers in business, industry, and government or for graduate work leading to advanced degrees. In addition, the department offers an undergraduate minor and service courses for students from other fields who will use computer science as a tool in their own areas. Students interested in computer science will be advised with respect to computer science courses by the department so they may profitably pursue their academic and professional interests.

Requirements for a major in computer science are specified in two alternative forms. The program under option A is the more flexible, broadly based, and provides preparation for a wide range of careers as well as for graduate training in computer science. Option B is more specifically oriented toward preparing students for careers in business and management information processing.

The department enforces the following retention policy: A computer science major will not be permitted to enter any of the courses, 220, 302, 306, 315, 330, 411, unless that student has achieved a grade point average of at least 2.50 for all required precedent computer science courses. Any exceptions to this policy will require the written approval of the departmental chairperson.

The department also enforces the following restriction on students repeating its courses: A student cannot repeat a course or its equivalent, in which a grade of B or better was earned, without the consent of the department.

### **Bachelor of Arts Degree, College of Liberal Arts**

#### COMPUTER SCIENCE MAJOR – OPTION A

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See Page 94)</i> .....	(4) + 4
<i>Requirements for Major in Computer Science</i> .....	58
Computer Science 202, 215, 220, 302, 306, 315, 330, 411, each with a grade of C or better .....	26
Computer Science electives .....	15
At least 15 additional hours including 361 or 464a. The electives should include at least 12 hours of 400-level computer science courses. The remaining courses may be 300 or 400-level computer science courses or approved courses from other departments.	
Mathematics 150, 250, 221, 380 .....	14
English 290 or equivalent .....	3
<i>Electives</i> .....	13
<i>Total</i> .....	120

#### COMPUTER SCIENCE MAJOR – OPTION B

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See Page 94)</i> .....	(4) + 4
<i>Requirements for Major in Computer Science</i> .....	60
Computer Science 202, 215, 220, 302, 306, 315, 330, 411, each with a grade of C or better .....	26
Computer Science 430, 435 .....	6
Computer Science electives .....	6
At least 6 additional hours of computer science courses including at least 3 hours at the 400-level. The remaining courses may be 300- or 400-level computer science courses or approved courses from other departments.	
Mathematics 140 and either 282 or 283 .....	7
English 290 or equivalent .....	3
Accounting 220, 230 .....	6
Management 352 .....	3



Management 318 or 456 or an approved course.....	3
Electives.....	11
Total.....	120

Minor

A minor consists of Computer Science 202, 215, 220, 302, 306 and 330.

Courses

**102-3 Computers in Society.** An introduction to computers, their uses, present and future roles of computer technology in society, and related social issues. Includes elementary programming using on-line terminals. Enrollment restricted to non-majors.

**129-3 Programming Personal Computers.** Overview of personal computer hardware and software. Programming in the BASIC language. Discussion of some applications software. Enrollment restricted to non-majors.

**202-3 Introduction to Computer Programming.** An introduction to computers and programming including a discussion of algorithms, data representation, structure and debugging of programs, computers and languages. Primary emphasis will be given to the design of algorithms for the solution of problems and the programming concepts required to implement algorithms in a particular programming language.

**212-3 Introduction to Business Computing.** An introduction to concepts and features of computing systems with reference to business information processing. Includes an introductory treatment of programming using BASIC. Enrollment restricted to non-majors.

**215-3 Discrete Structures I.** (Same as Mathematics 215.) Number systems and computer arithmetic. Sets relations and functions. Boolean algebra with applications to computer logic and logical design. Elementary matrix operations. Combinations, permutations, and counting techniques. Prerequisite: Mathematics 108 or equivalent.

**220-3 Advanced Programming and Data Structures.** A continuation of 202 which includes an emphasis on programming style, advanced features of the language, and data structures. Topics include string handling, recursion, arrays, stacks, queues, linked lists, trees, internal sorting, and searching. Prerequisite: 202 and 215 each with a grade of C or better.

**302-4 Assembly Language Programming.** Basic computer organization. An extensive treatment of a specific assembly language, including macros. Prerequisite: 202 and 215 each with a grade of C or better.

**306-3 Fundamentals of Computing Systems.** An introduction to the organization of a computing system in terms of hardware, firmware, software. Computer architecture and hardware subsystems. Design of an assembler and other system software. Prerequisite: 220 and 302 each with a grade of C or better.

**312-3 COBOL and Business Data Processing.** COBOL and its use in business data processing. Prerequisite: 202 or 212.

**314f-2 Programming Techniques in FORTRAN.** A thorough treatment of FORTRAN with extensive programming practice. Prerequisite: 202 or 212.

**314l-2 Programming Techniques in List and String Processing Applications.** Thorough analysis of the techniques used to support string and list processing. Includes extensive programming practice. Prerequisite: 220 with a grade of C or better.

**315-3 Discrete Structures II.** A continuation of 215 topics. Includes equivalence relations and partial order relations, an introduction to first-order logic and mathematical induction. Review of combinational circuits, synthesis and analysis of sequential circuits, flip-flops, and finite-state machines. Introduction to graphs and trees, including directed graphs, circuits, tree traversal, and shortest path algorithm. Prerequisite: 220 and 302 each with a grade of C or better.

**318-2 Topics in Assembly Language Programming.** Selected advanced topics in assembly language programming. Prerequisite: 220 and 302 each with a grade of C or better.

**330-3 File Organization.** An introduction to secondary storage devices and files. Topics include sequential files, indexed files, hashed files, inverted files, security, privacy, backup, and recovery. Prerequisite: 220 and 302 each with a grade of C or better.

**361-3 Numerical Calculus.** (Same as Mathematics 361.) Algorithms for the solution of numerical problems encountered in scientific research work with special emphasis on the use of digital computers. Includes an elementary discussion of error, polynomial interpolation, quadrature, solution of nonlinear equations and linear systems, solution of differential equations. Prerequisite: 202 and Mathematics 221 and 250.

**401-3 Computer Architecture.** Review of logical circuit design. Processor design including control unit and arithmetic logic unit. Memory organization. Input/output. High speed and fault-tolerant computing. Prerequisite: 306 and 315 each with a grade of C or better.

**411-4 Programming Languages.** Study of the significant features of existing programming languages with particular emphasis on the underlying concepts abstracted from these languages. Includes formal specification of syntax and semantics, representation and evaluation of simple statements, grouping of statements, scopes and storage allocation, procedures. Prerequisite: 220 and 302 each with a grade of C or better.



**414-3 Systems Programming and Operating Systems.** The use and implementation of assemblers, macro assemblers, linkers, and other systems programs. Exercises in designing and writing various systems programs. An introduction into process, memory, device, and file management in batch, multiprocessing, and timeshared operating systems. Prerequisite: 306 and 330 each with a grade of C or better.

**430-3 Database Systems.** A comprehensive treatment of database systems, including network, hierarchical, and relational systems. Prerequisite: 306 and 330 each with a grade of C or better.

**435-3 Software Design and Development.** An exercise in the analysis, design, implementation, testing, and maintenance of a large modular application system. Team production of a system is the focal point for the course. Topics include the system life cycle, modular design, human interfaces, external system specification, program design languages, and improved programming techniques. Prerequisite: 306 and 330 each with a grade of C or better.

**436-3 Artificial Intelligence I. Heuristic Programming.** Heuristic methods: state space, problem reduction, game playing, general problem solver, learning machines. Prerequisite: 315 with a grade of C or better.

**440-3 Introduction to Computer Networks.** Design and analysis of computer communication networks. Topics to be covered include data transmission, data link protocols, topological design, routing, flow control, security and privacy, distributed data processing, network performance evaluation. Prerequisite: 306 and 315 each with a grade of C or better and Mathematics 380.

**447-3 Introduction to Graph Theory.** (Same as Mathematics 447.) Introduction to theory of graphs, digraphs, and networks and applications to electrical systems and computer science. Topics include blocks and cutpoints, Eulerian graphs, trees, cycles and cocycle spaces, planarity and Kuratowski's Theorem, connectivity and Menger's Theorem, Hamiltonian graphs, colorability and Heawood's Theorem, weak and strong connectivity in digraphs, existence of directed paths and cycles in tournaments, flows in networks, and Ford-Fulkerson Theorem. Prerequisite: Mathematics 221 and one of Mathematics 319, Computer Science 342, or Engineering 335.

**449-3 Combinatorics and Graph Theory.** (Same as Mathematics 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion, Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 315 or Mathematics 319 or consent of department.

**451-3 Introduction to the Theory of Computing.** (Same as Mathematics 451.) The fundamental concepts of the theory of computation including finite state acceptors, formal grammars, turing machines, and recursive functions. The relationship between grammars and machines with emphasis on regular expressions and context-free languages. Prerequisite: 302 and 315 each with a grade of C or better.

**455-3 Design and Analysis of Computer Algorithms.** Introduction to analysis and complexity of algorithms. Searching/sorting algorithms, polynomial matrix algorithms, graph theoretic algorithms. Introduction to complexity theory. Prerequisite: 315 and 330 each with a grade of C or better and Mathematics 380.

**464-6 (3, 3) Numerical Analysis.** (Same as Mathematics 475.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 202 and Mathematics 221 and 250.

**470-3 Computer Simulation Techniques.** Applications and rationale. Design and analysis of discrete simulation models. Generation of random sequences and stochastic variates. Simulation languages. Prerequisite: 202 and Mathematics 380.

**471-3 Introduction to Optimization Techniques.** (Same as Mathematics 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 202 and Mathematics 221 and 250.

**472-3 Linear Programming.** (Same as Mathematics 472.) Nature and purpose of the linear programming model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimality analysis. Prerequisite: 202 and Mathematics 221.

**485-3 Computer Graphics.** Study of the devices and techniques for the use of computers in generating graphical displays. Includes display devices, display processing, transformation systems, interactive graphics, 3-dimensional graphics, graphics system design and configuration, low and high level graphics languages, and applications. Prerequisite: 220 and 302 each with a grade of C or better; Mathematics 150 and 221 are recommended.

**490-1 to 6 (1 to 3 per semester) Readings.** Supervised readings in selected subjects. Prerequisite: consent of instructor and department.

**491-1 to 4 Special Topics.** Selected advanced topics from the various fields of computer science. Prerequisite: consent of instructor.

**492-1 to 6 (1 to 3 per semester) Special Problems.** Individual projects involving independent work. Prerequisite: consent of department.

**493-1 to 4 Seminar.** Supervised study. Preparation and presentation of reports. Prerequisite: consent of instructor.



- 501-3 Advanced Computer Architecture.
- 511-3 Formal Specification of Programming Languages.
- 514-3 Advanced Operating Systems.
- 516-3 Compiler Construction.
- 530-3 Database Management Systems.
- 532-3 to 6 Topics in Information Systems.
- 536-3 Artificial Intelligence II.
- 540-3 to 6 Advanced Topics in Computer Systems.
- 553-3 Formal Languages and Automata.
- 555-3 Theory of Computability.
- 564-3 to 9 (3, 3, 3) Advanced Numerical Analysis.
- 570-3 to 9 per topic (3, 3, 3) Topics in Operations Research.
- 590-1 to 9 Readings.
- 591-1 to 9 (1 to 3 per topic) Special Topics.
- 592-1 to 6 (1 to 3 per semester) Special Problems.
- 593-1 to 4 Seminar.
- 599-1 to 5 Thesis.
- 601-1 to 12 per semester Continuing Research.

Construction Technology (Program, Major, Courses)

The construction technology curriculum is designed to meet the needs of the construction industry. Particular emphasis is placed upon residential and light commercial construction. The technician working in construction must be able to communicate in the language of the industry, understand and interpret construction drawings, specifications, and methods of building fabrication and assembly. Technicians must also be capable of working in the area of middle management that exists between architect and craftsman. The technician is expected to carry out the mandates of building design. The program provides sufficient theory and laboratory work so that the graduate can perform in areas of design, drafting, construction methods, estimating, and supervision.

The curriculum is designed to accept both new freshmen and transfer students. Students entering with industrial experience or courses taken in the military may be given credit by proficiency or transcript evaluation.

Students entering this program should expect to spend about \$150 over a two-year period for instruments, tools, materials, and supplies.

The program is served by an advisory committee whose members have extensive experience in the construction field.

Graduates of the program may find employment as construction engineering aides, assistants within the construction supervision field, building materials sales representatives, building code inspectors, and estimators.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experiences.

Associate in Applied Science Degree, School of Technical Careers

<i>Requirements for Major in Construction Technology</i>	
GE-D 101 and 118 or 153.....	5-6
School of Technical Careers 105a,b, 107a,b, 120.....	11
Construction Technology 100, 102, 103, 104, 105, 110, 111, 125, 203, 207, 208, 209, 210, 211, 225 .....	53
Electives (in Humanities or Social Sciences).....	3
<i>Total</i> .....	72-73

Courses

- 100-1 Construction Orientation.** The student will be given an overview of the construction industry and the various job opportunities available. Guest speakers and field trips are included.
- 102-4 Construction Drawing and Blueprint Reading.** Students will learn to read architectural drawings, to sketch shop drawings and construction details, and to mechanically draw typi-

cal plans often included in a set of house plans. Lecture/laboratory six hours. Materials fee, \$3.

**103-4 Concrete Technology.** The student will obtain knowledge of concrete, its physical and mechanical properties, and the design and control of concrete mixes. In addition, forming systems and the use of concrete as a building material in residential and light commercial construction will be demonstrated. Materials fee, \$3.

**104-4 Surveying in Construction.** The student will perform basic surveying operations necessary for the location, lay-out and construction of a building. Interpretation of plat books, site plans, and topographic maps is included. A major portion of the course will be spent in field work. Lecture/laboratory six hours. Material fee, \$2.

**105-2 Construction Codes, Specifications, Inspection and Safety.** This course is designed to make the students aware of safety practices on the job site, OSHA standards and accident prevention. Also, knowledge of building codes, architect and government specifications and building inspection procedures as commonly found in residential and light commercial construction will be discussed. Lecture two hours.

**110-5 Residential Framing and Exterior Finish.** Students will acquire the basic skills necessary to layout and build a wood frame home. Emphasis is placed on proper layout, fabrication, and erection techniques for floor, wall, and roof frame systems. Lecture/laboratory eight hours. Materials fee, \$6.

**111-5 Interior Finish.** The student will acquire the skills and knowledge necessary to complete the interior of residential or light commercial buildings. Emphasis will be given to shop and site operations required to install mouldings, cabinets, doors, windows, and wall, floor, and ceiling finishes. Lecture/laboratory eight hours. Materials fee, \$6. Prerequisite: 110.

**125-3 Structural Mechanics I.** Students will learn fundamental principles of mechanics as they apply to stationary structures. Students will apply these principles and use tables and formulas in the determination of loads and the selection of wooden members and steel connectors which will safely carry these loads on floor and roof systems. Lecture three hours. Prerequisite: School of Technical Careers 105 or consent of department.

**203-4 Construction Materials.** The student will gain knowledge of physical properties, material composition, and use of materials in residential and light commercial construction. Lecture four hours. Materials fee, \$2.

**207-3 Construction Management.** Students will gain knowledge of construction management functions, primarily from the point of view of the building contractor. Emphasis will be placed on business operations as they relate specifically to the construction industry. Lecture three hours. Materials fee, \$3.

**208-3 Construction Cost Estimating.** The student will be able to assist in the preparation of construction cost estimates. Actual working drawings and specifications are used extensively. Emphasis is on quantity take-off and the development of unit costs from given or derived data. Lecture three hours. Materials fee, \$3. Prerequisite: 102.

**209-4 Mechanical Systems.** The student will obtain knowledge of electrical, plumbing, heating, and air conditioning systems commonly found in residential and light commercial buildings. Emphasis is placed on interpretation of local, state, and national codes. Active and passive solar systems are also studied as alternatives to conventional heating and cooling systems. Lecture four hours.

**210-5 Remodeling and Renovation.** Students will acquire knowledge of the techniques and technologies necessary to remodel, repair, or renovate existing residential and small commercial buildings. The student will study the design and construction techniques required to convert unused areas into additional living space, additions to existing structures, upgrading of mechanical and electrical systems to meet building codes and repair, renovation and maintenance of older buildings. Lecture/laboratory eight hours. Materials fee, \$6. Prerequisite: 111.

**211-3 Commercial Construction.** Students will acquire the technical background necessary to perform operations in the construction of prefabricated single family and multi-family dwellings, agricultural buildings, prefabricated commercial and industrial metal buildings, and prefabricated concrete buildings. Lecture three hours. Prerequisite: 111.

**225-3 Structural Mechanics II.** Students will extend their abilities to assist engineers, architects, builders in determining stresses in members of trusses and in selecting proper-sized steel beams or open web joists, wood or steel columns or struts, welded joints, and reinforced concrete beams, footings, and basement walls. Lecture three hours. Prerequisite: 125, School of Technical Careers 105.

**303-3 Advanced Concrete Technology.** Provides the student with knowledge of the design and use of specialty concrete, admixed concrete, architectural concrete, structural concrete in commercial construction, and precast concrete products. Knowledge of types and methods of steel reinforcement, concrete inspection procedures, and ASTM Testing Standards will be acquired. Successful completion of this course can lead to certification by the American Concrete Institute as Concrete Field Testing Technician-Grade I. Lecture/laboratory. Prerequisite: associate degree with construction technology major or consent of department.

**307-3 Computer Applications in Construction.** Will advance the computer training students received in the associate degree construction technology courses. Students will study advanced computer problems in estimating, scheduling, planning, marketing, mechanical system sizing, and performance. Students should learn to interpret computer-generated data and how to modify



programs to meet changing industry needs. Prerequisite: associate degree in construction technology or consent of department.

**325-3 Quality Assurance in Construction.** The student is introduced to the role of the construction inspector, will develop skills of communication with the trades and management, and will acquire knowledge of quality assurance systems, documentation techniques and significant legal aspects of construction failures. Lecture three hours. Prerequisite: 102, 103, 105, 125, 203, 225, and School of Technical Careers 107, equivalent experiences, or consent of instructor.

# Consumer Economics and Family Management

(Major, Courses)

The consumer economics and family management program is a part of the Division of Advanced Technical Studies. Issues in consumer economics, management, and housing are of growing interest to consumers, business, and society. This program is concerned with (1) consumer's role and effectiveness in the marketplace, (2) the family's management of limited or restricted resources, and (3) the social and economical aspects of housing. Two specializations, consumer services in business and family services consultant, are offered leading to the Bachelor of Science degree. A minor in consumer studies is also available.

## Bachelor of Science Degree, School of Technical Careers

<i>General Education Requirements</i> .....	45
GE-A .....	9
GE-B 108, 202 and 211 required .....	9
GE-C .....	9
GE-D 101, 117 or 118, 153, and 107 required .....	11
GE-E .....	4
<i>Requirements for Major in Consumer Economics and Family Management</i> .....	41-42
Consumer Economics and Family Management 240, 330, 340, 350, 445, 494-4, 499 .....	20
Specialization Requirements .....	21-22
See Requirements listed below	
<i>Electives</i> .....	33-34
<i>Total</i> .....	120

### CONSUMER SERVICES IN BUSINESS SPECIALIZATION

This specialization prepares students for professional opportunities in consumer affairs in industry and government. Special emphasis is placed on the role of the consumer in the marketplace and the consumer's relationship to private enterprise and government agencies. A key focus of the program is the application of concepts and the critical analysis of problems and issues affecting the consumer's interests and choices.

<i>Specialization Requirements</i> .....	21
Consumer Economics and Family Management 341, plus six additional hours .....	9
Finance 280 .....	3
Marketing 304 .....	3
Journalism 340 or 341 .....	3
Management 301 or 304 .....	3
<i>Recommended Electives</i> .....	34
Consumer Economics and Family Management 370; GE-A 221, 230, 240, 312; GE-B 212; Accounting 210; Vocational Education Studies 335, 337, or 345; Finance 310, 320, 370, 380; Food and Nutrition 156, 215,	

321, 335, 356; Marketing 305, 329, 363, Political Science  
321; Radio-Television 467; Speech Communication 221.

FAMILY SERVICES CONSULTANT SPECIALIZATION

This specialization is designed to give students a knowledge and understanding of the family's management and allocation of resources. This specialization prepares students for employment in public and private welfare agencies, cooperative extensions, and local government and other programs. The low-income family is of particular interest in this specialization. Elective courses should reflect the student's personal employment goals. The program is tailored to meet the theoretical as well as applied concepts in preparing students to serve individuals and families of various ages, physical abilities, and income levels.

<i>Specialization Requirements</i> .....	22
Consumer Economics and Family Management 320, 351, 370.....	7
Curriculum, Instruction, and Media courses approved	
by the department .....	6
Health Education 330 .....	3
Food and Nutrition 215.....	2
Social Work 383 .....	4
<i>Recommended Electives</i> .....	33
Economics 304; Consumer Economics and Family Man-	
agement 331, 430; GE-E 236; Black American Studies	
330; Psychology 307; Social Work 375, 401, 402, 463;	
Sociology 302, 335, 435; GE-A 221, 230, 240, 312;	
Vocational Education Studies 336, 337; Journalism 340, 341.	

Minor in Consumer Studies

The consumer studies minor offered is designed to give students background in consumer economics and home management. The selection of courses is flexible so that course work can be adapted to the special interests of students with diverse goals and backgrounds.

Required courses: Consumer Economics and Family Management 240, 340, and 350; three courses to be selected from the following: Consumer Economics and Family Management 320, 330, 331, 341, 351, 370, 407, 420, 430, 451, and 494.

Courses

**240-3 Consumer Resources.** An introduction to the resources available to young adults in tackling consumer problems and disputes in housing, automobile care, health services, food purchases, educational expenditures, money management, and other areas of interest to the student. Special attention is given to community and university agencies such as IPIRG, tenant union, chamber of commerce, attorney general's office, and other organizations helpful in resolving problems.

**320-2 Household Equipment.** Materials, construction, selection, operation, and care of equipment to provide maximum satisfaction to the family are identified. Some emphasis placed on design and use of kitchen and laundry areas.

**330-3 Housing.** An examination of the physical characteristics of housing as they relate to family needs, wants, and capabilities, as well as the social and economic factors which affect satisfaction associated with family shelter. Field trip.

**331-3 Human Environment and Living Space.** A study of the living spaces of homes and the relationship of these spaces to the social, economic, and aesthetic needs of humans.

**340-3 Consumer Problems.** Study of family income and expenditure patterns, selection of commodities and services, and an analysis of consumer protection devices. Materials fee, \$10 per credit hour, will be charged to students registered in individualized version of this course (Section 800).

**341-3 Consumers and the Market.** The impact of market and governmental activities on consumers' decision-making. Analysis and evaluation of programs designed to inform and to protect consumers.

**350-3 Management of Family Resources.** A study of factors affecting the management of the home in meeting needs of individuals and creating a satisfying environment for the family. Special consideration given to management of time, money, and energy resources.

**351-2 Home Management Practicum.** Analysis of current management situations and family resources use with practical application of basic principles. Additional costs required. Prerequisite: 350 and consent of chairperson.



- 370-3 Management for Low-Income Families.** Job-oriented course for social welfare careers; selected concepts in family economics and management with application to the low-income family.
- 380-2 to 6 Special Problems.** Selection and investigation of a special problem under personal supervision of departmental faculty, approved by chairperson and instructor. Every semester.
- 407-1 to 3 Workshop.** Designed to aid workers in professions related to use of family resources. Emphasis for each workshop will be stated in the announcement of the course. Every semester.
- 420-3 Trends in Household Equipment.** Design, function, principles of operation, current trends, and ecological problems related to equipment use in household and society are considered. Prerequisite: 320.
- 430-3 Housing Alternatives.** Selected aspects of the housing market and their relationship to changing life styles of households. Structure, operations and performance of the housing market and home building industry, housing finance, and contemporary housing problems and issues are considered. Fall Semester. Prerequisite: 330 or consent of instructor.
- 445-3 Family Financial Management.** Developments in family financial management and the evaluation of methods and procedures for helping families, with emphasis on the role of the consultant. Case studies and simulation, as well as field problems, are included. Fall semester and alternate summers. Prerequisite: 340 and 350, equivalent, or consent of instructor.
- 451-3 Household Activity Analysis.** A study of work methods and place, as well as the characteristics of the worker, in relation to solving problems of employed, full-time, and handicapped home managers.
- 480-3 Women in the Home and Labor Market.** (Same as Women's Studies 488). An evaluation and interpretation of the economic contributions of women in household production and in the labor market. Related issues such as fair employment practices, role conflicts, and legal issues will be considered.
- 494-1 to 4 Field Experience.** Supervised learning experiences in an acceptable employment area. Every semester. Prerequisite: 370 and consent of chairperson.
- 499-1 Senior Seminar.** A study of contemporary issues in the field of family economics and management including the concerns of new professionals entering the field. Not for graduate credit.
- 530-3 Societal Factors in Housing.**
- 535-3 Housing Consumption.**
- 540-3 Consumption Trends.**
- 550-3 Advanced Home Management.**

## Curriculum, Instruction, and Media (Department, Majors, Minors [Educational Media, Child and Family], Courses)

The Department of Curriculum, Instruction, and Media offers a major in early childhood education with two specializations: preschool (0-6) and kindergarten through third grade, a major in child and family, a major in elementary education, and minors in child and family and educational media; offers courses for students pursuing the standard high school certification program, including a major in language arts (English and reading) and a major in social studies. The department offers programs to prepare students to qualify for the following Illinois teaching certificates: Early Childhood Certificate (for teaching ages 0-6); Standard Elementary Certificate (for teaching in grades K-9); or Standard High School Certificate (for teaching in grades 6-12). Students may enter the department (1) directly from within the College of Education, (2) from the General Education program, (3) from other academic units, or (4) from other institutions of higher education.

### Early Childhood Education Major

This program encompasses the professional training needed to assume a variety of roles such as infant development specialists; child life practitioners; early childhood teachers and administrators; teacher and parent educators; family service workers; and teaching young children in elementary schools.

#### EARLY CHILDHOOD EDUCATION MAJOR – PRESCHOOL SPECIALIZATION

Students interested in teaching children 0-6 years of age in private or state-approved settings may elect to participate in the early childhood education major leading to preschool certification. Specifically designed to prepare future teachers of children under six, this program will lead to the State of Illinois Early Child-

hood Certificate. Students wishing to teach public school kindergarten are directed to the K-3 specialization program.

There are sequential steps for admission and retention in the early childhood education major with preschool specialization program,

1. Completion of Curriculum, Instruction, and Media 209, 240, and 245 with a grade of C or better, an overall grade point average of 2.25, and a favorable vote of the early childhood faculty based on the student's performance in the above courses.
2. To be eligible for field experience, a student must have attained a minimum overall grade point average of 2.50, successfully completed Curriculum, Instruction, and Media 209, 227, 237, 240, 245, 317, 318, 319, 337, Education 312, Special Education 400 and 412; have made preliminary application for field experience; and be approved by the coordinator of the early childhood major based on performance in the above courses. Applications for field experience must be submitted within the first two weeks of the semester during which the student is enrolled in Curriculum, Instruction, and Media 319.

<i>General Education Requirements</i> .....	45
Including GE-B 202; GE-B 212 or 301; GE-C 100 and an art class; GE-D 101, GE-D 117 or 119; GE-E 201 and Physical Education activity class.	
<i>Requirements for Major in Early Childhood Education with Preschool Specialization</i> .....	69
Curriculum, Instruction, and Media 209, 213, 227, 237, 240, 245, 317, 318, 319, 325, 337, 404, 414, 418, 419, 435. ....	44
Education 312, 401 <sup>1</sup> . ....	11
Food and Nutrition 215. ....	2
Psychology 301. ....	3
Special Education 400, 412. ....	6
Speech Communication 340 .....	3
<i>Electives</i> .....	12
Selected to meet general education requirements for certification	
<i>Total</i> .....	126

<sup>1</sup>During the field experience semester a student may enroll in Education 401 and no more than six additional hours of credit or two additional courses. A four hour block of time is required each day during the field experience semester. Morning placements are to be expected and planned for. Education 401 must be supervised by the coordinator for field experience.

Students wishing further enrichment in special education, infant development, administration of programs, and family studies should contact their adviser for a list of recommended courses.

EARLY CHILDHOOD EDUCATION MAJOR – KINDERGARTEN THROUGH GRADE THREE  
SPECIALIZATION

In the early childhood education kindergarten through grade 3 specialization program, special emphasis is placed on teaching young children in the elementary school. This major leads to the State of Illinois Standard Elementary Certificate.

In order to qualify for retention in the teacher education program, students must have completed two Curriculum, Instruction, and Media courses with a C or higher grade, attained a grade point average of at least 2.40 and have favorable majority vote of the early childhood education faculty on the basis of professional competencies.

<i>General Education Requirements and Additional General Education Requirements for Major</i> .....	75
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Physical and Biological Sciences (GE-A)..... 11

Social Sciences (Including GE-B 202 and 301, other  
GE-B courses) ..... 11

Fine Arts (Including GE-C 100, 101, or 205. Music 101 or two levels  
of Music 030; Curriculum, Instruction, and Media 325; and  
Art 348. .... 14

Language Arts (Including GE-D 101; 117 or 119; GE-D speech  
and GE-C literature). .... 16

Mathematics (Including Mathematics 114 or equivalent to substi-  
tute for GE-D 107 and Mathematics 314) ..... 7

Health and Physical Education (Including GE-E courses and Physi-  
cal Education 202) ..... 7

Electives (Curriculum, Instruction, and Media 427 recommended)<sup>1</sup> . 9

*Professional Education Requirements* ..... 25

See Teacher Education Program, page 83.

*Specialization Requirements for Major* ..... 24

Curriculum, Instruction, and Media 213, 312, 315, 316, 324, 423,  
426, 435<sup>1</sup>, Vocational Education Studies 368

*Electives*. .... 4

Must be taken in Curriculum, Instruction, and Media: recom-  
mended are 402, 407e or 407f and 419

*Total*. .... 128

<sup>1</sup>Applies as a general education certification requirement for major.

**Child and Family Major**

This program offers basic background leading to positions as nursery school direc-  
tor or teacher in private schools, colleges and universities, and day care centers;  
director or teacher in residential living facilities for exceptional children; child  
care specialists with social, public health and welfare agencies; home economics  
extension specialist in child care; and recreational leaders.

*General Education Requirements* ..... 45

Including GE-B 108 and 202, GE-D 152

*Requirements for Major in Child and Family* ..... 39-40

Curriculum, Instruction, and Media 227, 237, 317, 318, 319, 327,  
337, 404, 414, 417, 498-6, Education 312. .... 37

Food and Nutrition 215 or 490 ..... 2-3

*Electives* ..... 35-36

Recommended for Preschool Director and Teachers: Curriculum,  
Instruction, and Media 325, 390h, 453, 455, 498h; Botany 390; Art  
348; Physical Education 202; Special Education 400; Psychology 301.

Recommended for Child/Family Care Specialists in Social  
Services: Psychology 305; Social Work 375, 383, 391; Special  
Education 400; Sociology 426; Curriculum, Instruction, and  
Media 390h, 498h.

Recommended for Residential Life Directors and Supervisors:  
Health Education 334; Special Education 400, 401, 402, 403;  
Communication Disorders and Sciences 104, 316; Curri-  
culum, Instruction and Media 326; Recreation 300; Social  
Work 375, 383; Psychology 301, 451.

Recommended for Infant Care Specialists: GE-A 115, GE-B 262;  
Curriculum, Instruction, and Media 405; Health Education 334;  
Psychology 301.

*Total*. .... 120

**Elementary Education Major**

A Bachelor of Science degree with a major in elementary education entitles the student to apply for the State of Illinois Standard Elementary Certificate, which will allow the holder to teach in kindergarten through ninth grade.

Elementary education majors may select either an area of interest consisting of eight semester hours of electives in science, language arts, social studies, mathematics, language other than English, multicultural studies, educational media, the arts, physical education, or environmental education.

In order to qualify for retention in the teacher education program, students must have completed two Curriculum, Instruction, and Media courses with a C or higher grade, attained a grade point average of at least 2.25 and have favorable majority vote of the elementary education faculty on the basis of professional competencies.

<i>General Education Requirements and Additional General Education Requirements for Major</i> .....		64
Physical and Biological Sciences (GE-A).....	9	
Social Studies (Including GE-B 202, 212, and 301) .....	9	
Fine Arts (Including GE-C 100, 101, or 205; must include one music and one art course, which may be taken as part of GE-C).....	9	
Language Arts (Including GE-D 101; 117 or 119; GE-D speech and GE-C literature).....	11	
Mathematics (Including Mathematics 114 or equivalent to substitute for GE-D 107 and Mathematics 314) .....	7	
Health and Physical Education (GE-E).....	4	
Electives (May be taken from electives cited under specialization requirements to further enhance and support this area) .....	15	
<i>Professional Education Requirements</i> .....	25	
See Teacher Education Program, page 83.		
<i>Specialization Requirements for Major</i> .....	30	
Curriculum, Instruction, and Media 312, 315, 423, 424, 426, 427 <sup>2</sup> , 435 <sup>2</sup> .....	22	
Electives .....	8 <sup>1</sup>	
Electives to be selected from one of the following areas: science, language arts, social studies, mathematics, language other than English, multicultural studies, educational media, the arts, physical education, or environmental education		
<i>Electives</i> <sup>3</sup> (eight hours must be in Curriculum, Instruction, and Media courses).....	9	
<i>Total</i> .....	128	

<sup>1</sup> Elective hours from general education may apply; combined total must equal 16 hours.  
<sup>2</sup> Applied as a general education certification requirement for major.  
<sup>3</sup> Many states require a course on special needs learners and two courses in reading methods. Two courses in reading are required for teaching in Chicago schools.

**Majors To Prepare For Secondary School Teaching**

Students who elect to pursue a Bachelor of Science degree in the College of Education, for purposes of preparing to teach in junior or senior high schools, should select academic majors and minors from the areas included in the listing below. Included in the column headed Major are those areas for which Southern Illinois University has approval from the State of Illinois Office of Education and from the State Teacher Certification Board.



TEACHING AREA	MAJOR	MINOR <sup>1</sup>
Agricultural Education <sup>2</sup>	X	
Art	X	
Biological Sciences	X	X
Black American Studies		X
Business Education <sup>2</sup>	X	X
Chemistry	X	X
Earth Science		X
Economics		X
Educational Media		X
English	X	X
Foreign Languages <sup>4</sup>	X	X
Geography	X	X
Health Education	X	
History	X	X
Home Economics Education <sup>2</sup>	X	
Language Arts (English and Reading)	X	
Mathematics	X	X
Microbiology		X
Music	X	X
Occupational Education (Industrial Arts and Trades and Industries) <sup>2</sup>	X	
Philosophy		X
Physical Education	X	X
Physics	X	X
Physiology		X
Political Science	X	X
Psychology		X
Social Studies	X	
Sociology		X
Speech Communication	X	X
Theater		X
Zoology <sup>3</sup>	X	X

<sup>1</sup>All minors used for certification purposes must meet the minimum number of hours specified in *State Board Document I*.

<sup>2</sup>Requirements for programs in agricultural education, business education, home economics education, and occupational education may be found in the catalog section titled Vocational Education Studies.

<sup>3</sup>A student with a major in zoology should have a minor in botany in order to meet certification standards for teaching biology at the high school level.

<sup>4</sup>Majors and minors are offered in the specific languages. The student should consult the academic adviser for information concerning the majors and minors available.

Each student who wishes to apply for the Standard High School Certificate through the certification entitlement process at Southern Illinois University must fulfill the following requirements of the University's Teacher Education Program:

1. The individual must have completed a baccalaureate program at Southern Illinois University.
2. The individual must have completed one of the approved majors included in the previous listing.
3. The individual must have fulfilled requirements for certification related to the state and federal constitutions and an American government or American history course by either (a) taking GE-B 212 or 301 or History 300; (b) taking a course in American history or political science other than those listed in (a), above, and passing the constitution test administered by Southern Illinois University; (c) presenting written notification from another institution that a course in American

history or political science has been passed and that the Illinois and United States Constitutions tests have been passed.

4. The individual must have fulfilled certification requirements in health and physical education which can be satisfied by taking GE-E 201 and two hours in GE-E 100-114 courses.

5. The individual must have completed the sequence of professional education courses with a grade of C or better. See Teacher Education Program, page

6. The individual must have completed a special methods course pertaining to the major.

7. The individual must have fulfilled State Teacher Certification Board general education distributions in the required areas: language arts, science, mathematics, social studies, humanities, health and physical education.

Students who wish to prepare to teach in middle school or junior high schools should inform their advisers of this interest early so they can include in their programs those courses which will prepare them for teaching in that area. The student's electives should be planned to include course work in a subject matter area of major interest to the student.

**Language Arts (English and Reading) Major**

This program is designed to meet the needs of students who wish to teach English language arts (including reading) at the junior/middle school level, or who wish to teach high school students whose language skills are not up to high school level. The graduate of this program will be qualified to work with the language skills development which is crucial during early and middle adolescence. To develop such qualifications, students in the program learn how language skills are developed, the characteristics of the early and middle adolescent, and the variety of content, including literature, which can be used with these young people. The student also will gain an understanding of how these components can be integrated in a variety of school and classroom formats.

The content courses provide the substance or building blocks for use in the methodology courses, where teaching strategies are explored and experienced. The clinical experiences provide the guided practice where the student begins practical skill development, synthesizing and applying an understanding of English language arts content, learning and teaching strategies, adolescent behavior, and public school curricular needs.

<i>General Education Requirements</i> .....	45
Including GE-B 202, 212, and 301; GE-D 117, 118, or 119; GE-D 152 or 153; GE-E 201, 2 semester hours of Physical Education activity course.	
<i>Requirements for Major in Language Arts</i>	
<i>(English and Reading)</i> <sup>1</sup> .....	45 <sup>2</sup>
GE-C 200 .....	(3)
English 290 or 390, 300, 302a or 302b, 309, 365, 481, 485 .....	21
Curriculum, Instruction, and Media 361, 445, 407f, 423, 462 .....	15
Electives .....	9
Electives representing a maximum of 6 hours in any one category: Curriculum, Instruction, and Media 393c,f, 407c, 402, 464. Speech Communication 430; Speech Communication 465 or Philosophy 425; or Speech Communication course beyond 200. Theater 410.	

<sup>1</sup>In order to qualify for the professional semester assignment, students must have a grade point average of at least 2.25 in the major.  
<sup>2</sup>Although the hours shown in parentheses are required for the major, they will also count toward the 45-hour requirement in General Education.



One of: English 281, 282, 283; Curriculum, Instruction, and Media 410.	
Linguistics (course deemed appropriate by adviser).	
Professional Education Requirements .....	25
See Teacher Education Program, page 83.	
Electives.....	5
Total.....	120

Social Studies Major

This program is designed to meet the needs of students who wish to teach social studies in the middle/junior high school or the senior high school. The graduate of this program will be qualified to teach social studies, history, political science, geography, sociology, and economics, based on requirements of the Illinois State Teacher Certification Board.

The complex nature of our competitive, pluralistic society mandates social studies curricula which prepare future citizens to comprehend and adjust to a changing social environment. The goal of the social studies program is to prepare prospective social studies teachers for the role of leadership in guiding middle school, junior, and senior high school students to live as effective citizens in a democratic society.

Content and professional course work provide the foundation used in the social studies methods course, where teaching methods and strategies are explored and experienced. A series of clinical experiences provide the social studies major an opportunity to use the knowledge and skills acquired in the program. A cooperative teaching and university supervisor will assist the student blend knowledge and skills with adolescent behavior and curriculum needs.

General Education Requirements .....	45
Including GE-D 101 and 117, 118, or 119; 3 semester hours of mathematics; 2 semester hours of speech or other oral communications; GE-E 201; 2 semester hours of physical education activity courses; one GE-C literature course	
Requirements for Major in Social Studies .....	50 <sup>1</sup>
GE-B 301, History 300, U.S. history elective .....	(3) + 6
History 205a, 205b, world history, plus 3 hours at the 300 or 400 level.....	9
Economics 214, 215, economics elective .....	9
GE-B 212, Political Science 213, political science elective.....	(3) + 6
GE-A 330, Geography 300, geography elective.....	(3) + 5
GE-B 104, 202, Sociology 301 .....	(6) + 4
Electives to be chosen from one of the three departments of anthropology, psychology, or sociology .....	8
Curriculum, Instruction and Media 469 .....	3
Professional Education Requirements .....	25
See Teacher Education Requirements, page 83.	
Total.....	120

<sup>1</sup>Although the hours shown in parentheses are required for the major, they will also count toward the 45 hour requirement in General Education.

Child and Family (Minor)

The minor in child and family is designed to provide students with basic knowl-

edge in early childhood or family studies. The selection of coursework is flexible so that courses can be adapted to the special interests of students with diverse backgrounds and goals. Students are expected to honor all prerequisites in their selection of courses. A minimum of 16 hours of coursework are required as follows: Curriculum, Instruction, and Media 227, 237 ..... 6  
Electives to be chosen from the following: ..... 10

- Early Childhood Emphasis: Curriculum, Instruction, and Media 240, 337, 390H, 404, 498H
- Family Studies Emphasis: Curriculum, Instruction, and Media 327, 390Q, 414, 498Q

**Educational Media (Minor)**

Persons trained as teachers may qualify as school media professionals by completing the following courses: Curriculum, Instruction, and Media 438, 439, 440, 442, 435 or 445 and 453. Other courses in the utilization and administration of teaching materials are designed to train both audiovisual coordinators and librarians to become fully qualified educational media specialists who can administer all teaching materials.

**Courses**

**199-1 The Library as an Information Source.** Designed to expose undergraduate students to the basic concepts and structures of the library. This would enable students to use their knowledge in completing reading and term paper assignments as well as in gaining confidence for independent work in the library.

**209-2 Philosophy of Creativity.** The creative process in developing child. Emphasis will be upon the levels, dimensions, and individuality of creativity as it is manifested, observed, and nurtured in preschool children. (To be taken concurrently with Child and Family 240 and 245 by early childhood preschool majors.)

**212-2 Reading College Texts.** Textbooks, supplementary materials, and evaluative instruments will be analyzed. Attention will be given to determining usability, feasibility, learnability, and teachability of instructional materials. The following factors will be investigated: content structure and organization, concept density, conceptualization levels, readability, and format.

**213-2 Understanding the Elementary School Child.** Child development concepts necessary for understanding the elementary school child, with information provided on preschool, primary, and intermediate grade levels.

**227-3 Marriage and Family Living.** (Same as Women's Studies 286.) A study of relationships and adjustments in family living, designed largely to help the individual. To help student better understand the recent changes that have occurred in marriage and the family in the United States.

**237-3 Early Child Development I.** Principles of development and guidance of children as applied to home situations. Directed observations of children from 0 through 6. Understanding the social, emotional, physical, and intellectual development of the preschool child.

**240-2 Survey of Careers in Preschool Programs.** A survey course to acquaint students with the varied career opportunities, approaches to programming, and professional personnel in working with children under six. Field trips will be taken to area program centers. To be taken concurrently with 209 and 245.

**245-3 Professional Development Seminar.** Designed with emphasis on realization of one's own potential in wholeness of life pattern and relationships as preparation for work with children, parents, and professional peers. To be taken concurrently with 209 and 240.

**258-1 to 4 Credit for Work Experience.** This course includes work experiences relevant to the student's major program, such as work in day care centers, teacher's aid in public school, or with federal, state, or local agencies or programs that deal with children. Prerequisite: 12 semester hours completed with a grade of B or better in the student's major area of concentration in the CIM department and consent of undergraduate affairs committee, Department of Curriculum, Instruction, and Media.

**312-3 Teaching Reading in the Elementary School.** Examination of the reading process with emphasis on the factors and conditions that affect reading. Emphasis on the formulation of a philosophy of reading and its implications in relation to methods, materials, organizational procedures, and evaluation techniques.

**315-3 Teaching Mathematics in the Elementary School.** Objectives of mathematics education, learning theory as it is related to mathematics, major concepts to be taught, modern approaches to instruction, with emphasis on the use of concrete learning aids. Four class hours and two laboratory hours per week. Prerequisite: Mathematics 114 and 314, or consent of instructor.

**316-2 Early Childhood Education Methods and Curriculum (K-3).** Philosophy and principles underlying the teaching of four-to-eight-year olds. Emphasis upon organization, equipment, mate-



rials, and methods for promoting growth of young children. Prerequisite: concurrent enrollment in Education 302.

**317-3 Instructional Materials and Activities for Preschool.** Provides opportunities to acquire a working knowledge of the purposes of the various types of preschool centers; the roles of the personnel; basic teaching skills; curriculum areas, including objectives, activities, and evaluation; and basis for parent-teacher communication.

**318-3 Early Childhood (Preschool) Curriculum I.** Understanding the role of the teacher in integrating the principles underlying child development with the natural interests and activities of the preschool child through the use of equipment, materials, and educational methods. Emphasis will be on language and affective development. Concurrent enrollment in one hour of Education 302 is required in order to provide practical experiences in a preschool setting one half day per week. Practicum experience in a preschool setting required for one-half day per week. Prerequisite: 209, 240.

**319-2 Early Childhood (Preschool) Curriculum II.** Diagnosing factors in the preschool learning situation, prescribing learning experiences, assessing effectiveness of learning and developing inquiry. Emphasis on cognitive and psycho-motor development. Concurrent enrollment in two hours of Education 302 is required in order to provide one day or two one-half days of practical experience per week in a preschool setting. Prerequisite: 318.

**324-2 Early Childhood Social Learning Methods.** The objectives, procedures, and methods of designing and implementing social learning environments for early childhood education programs; including an overview of significant early social learning theory and practice. Two hour block required for practicum experiences.

**325-3 Music for Young Children.** Designed to equip preschool and primary grade teachers with some musical competence to teach music in their classrooms. Although theoretical material will be covered, the course is oriented to practical methods of instruction. Prerequisite: Music 101 or equivalent.

**326-2 Music in Special Education.** Deals with procedures and techniques for using music in the special education classroom. Attention will be given to the general education nature of music, listening, singing, using instruments, structuring music, and teaching techniques. Prerequisite: Music 101 or equivalent.

**327-3 Family Studies.** Study of changing patterns in family living throughout the family life cycle. Insights into common current family problems typical of each stage of the family life cycle. Prerequisite: 227.

**328-2 Teaching Music in the Intermediate Grades.** For non-music majors only who may be expected to teach music in grades 4-6. Emphasis on music skills and related theory. Contemporary materials and instructional methodology will be utilized. Prerequisite: Music 101 or equivalent.

**337-3 Early Child Development II.** The specific behaviors of both parents and teachers are examined to determine the effect they have on the development of the preschool child's desirable and undesirable behavior. Prerequisite: 237.

**361-3 Teaching Reading in High School.** A foundation course in how to teach reading in junior and senior high school; developmental and remedial reading programs; appraisal of reading abilities; methods and materials of instruction in the content areas.

**390-1 to 3 Readings.** In-depth reading in various areas of education as related to the fields of (a) curriculum, (b) supervision for instructional improvement, (c) language arts, (d) science, (e) mathematics, (f) reading, (g) social studies, (h) early childhood education, (i) elementary education, (m) instruction, (n) educational media, (q) family studies. Prerequisite: consent of instructor.

**393-1 to 6 Individual Research in Education.** The selection, investigation, and writing of a research topic under the personal supervision of a member of the departmental staff in one of the following areas: (a) curriculum, (b) supervision for instructional improvement, (c) language arts, (d) science, (e) mathematics, (f) reading, (g) social studies, (h) early childhood education, (i) elementary education, (m) instruction, (n) educational media, and (o) environmental education, (q) family studies. Maximum of 6 hours to be counted toward a bachelor's degree. Prerequisite: consent of instructor.

**400-2 Simulation and Gaming.** The role of simulation and gaming in instruction, the availability of commercial games and simulation devices, and the theoretical backgrounds used in constructing teacher-made games are to be examined.

**402-3 Education for Disadvantaged and Culturally Different Students.** The student examines the characteristics of behavior and learning patterns of culturally different and socioeconomically disadvantaged children. Content also includes school adjustment, experiential background, self-concept, language development, and appropriate teacher behaviors and teaching strategies.

**404-3 Infant Development.** Current theories and knowledge concerning growth and development of infants with related laboratory field experiences. Prerequisite: 237 or Psychology 301 or equivalent.

**405-3 Infant Stimulation and Care.** Application of theories in infant development in care and stimulation practicum. Development of competencies and skills needed by infant specialists and professionals. Two hours seminar, 4 hours practicum. Prerequisite: 404 or consent of instructor.

**407-3 to 9 (3 per topic) Diagnostic and Corrective Techniques for the Classroom Teacher.** A presentation of diagnostic and remediation techniques with emphasis placed on appropriate methods and materials to be used in classrooms in the areas of (c) language arts, (e)



mathematics, and (f) reading. Prerequisite: special methods course in field selected by student and/or consent of instructor.

**409-3 Creative Teaching.** To assist pre- and in-service teachers in acquiring methods and materials that will improve instruction in the public school classroom, with special attention to the characteristics and needs of students. Prerequisite: Education 302.

**410-2 Creative Writing in the Public School.** Techniques of encouraging creative writings in the schools.

**412-3 to 15 (3 per topic) Improvement of Instruction in Early Childhood Education (Preschool-Grade 3).** Examines recent findings, current practices, and materials used in early childhood education in the fields of (c) language arts, (d) science, (e) mathematics, (f) reading, and (g) social studies. Prerequisite: specialized methods course for the field of study selected by the student.

**414-3 Practicum in Parent-Child Study.** Designed to increase student's ability to work with parents and parent groups through an awareness of factors in the parent-child relationship and knowledge of current research and methods in parent education. Integration with infant and child development laboratories and related field experience. Prerequisite: 227, 237, or equivalent.

**415-3 Modern Approaches to Teaching Middle School Mathematics (Grades 4-8).** Examines current mathematics materials and teaching approaches. Hands-on experience with a multitude of teaching aids including microcomputers and problem solving materials. Student exchange of ideas and discussion of activities for classroom use. Prerequisite: 315 or consent of instructor.

**417-3 Administration of Pre-School Programs.** Planning and organizing programs for pre-school or residential facilities including budgeting, staffing, programming, and evaluation. Prerequisite: 318 and 319.

**418-3 History and Philosophy of Early Childhood Education.** A survey of the history and philosophies of early childhood education with its implication for current program practices. Students' analysis of their personal philosophy of early childhood education. Prerequisite: 316, 318, senior or graduate standing.

**419-3 Parent Involvement in Education.** Materials, techniques, and resources suitable for use by teachers in helping parents and teachers to understand how they can help each other in the partnership responsibilities of the education of children from a variety of backgrounds. Prerequisite: 317, student teaching, or consent of instructor.

**420-3 Teaching the Adult Functional Illiterate.** The emphasis in the course will be on understanding the problems of the individual whose literacy level does not permit full participation in the economic, social, and civic opportunities available to the majority of citizens. Prerequisite: permission of instructor.

**423-3 Teaching Elementary School English Language Arts.** Oral and written communication processes with emphasis on the structure and process of the English language arts in the elementary school. Specific attention to the fundamentals of speaking English, writing, spelling, and listening. Study of learning materials, specialized equipment and resources.

**424-3 Teaching Elementary School Social Studies.** Emphasis on the structure and process of teaching social studies in the elementary school setting. Specific attention to the fundamentals of developing social studies objectives, planning units, developing a general teaching model, organizing the curriculum, and evaluating behavioral change. Study of learning materials, specialized equipment, and resources.

**426-3 An Introduction to Teaching Elementary School Science.** Content and methods of elementary school sciences, grades K-8. Emphasis on the materials and strategies for using both traditional and modern techniques of science education. One or more field trips.

**427-4 Science Process and Concepts for Teachers of Grades N-8.** (Same as Botany 462.) Specifically designed to develop those cognitive processes and concepts needed by elementary school teachers in the teaching of modern science programs. Lecture three hours per week, laboratory two hours per week. One or two additional field trips required.

**435-3 Literature for Children.** Studies types of literature; analysis of literary qualities; selection and presentation of books and other media for children; and, integration of literature in pre-school, elementary, and library settings.

**436-1 Bibliography and Literature of Education.** Introduction to the use of library resources for research in education. Includes bibliographies in education, the periodical literature, Office of Education publications, dissertation and thesis indexing services, and the Educational Resources Information Center (ERIC) materials. Students will learn to search the literature in preparation for literature review and will compile bibliographies in their own fields of interest.

**437-3 Educational Media in Training Programs in Business and Industry.** For those persons interested in the role that media plays in current training practices in business and industry. Emphasis is directed toward an understanding of the rationale for using media, a review of the various methods utilized in training programs, an examination of current training media, and a description of methods used to measure and evaluate the effectiveness of training media. Includes an examination of the roles of professionals who develop media for training.

**438-3 Introduction to Technical Services.** Organization of library materials. Emphasis on cataloging and classification. Includes acquisition, processing, and circulation of materials. The De-



wey Decimal classification system and Sears list of subject headings are stressed. Laboratory assignments.

**439-3 Basic Reference Sources.** Introduction to the principles and methods of reference work. Concentration on the study and examination of the tools which form the basic reference collection of the school and the community college library.

**440-3 Selection of School Library Media.** Evaluation of print and non-print materials, resources, and services; competencies for efficient purchasing and selecting of library materials. Includes selection principles and problems for elementary, secondary, and community college libraries.

**442-4 Administration of the School Media Program.** Functions and management of elementary and secondary school library media programs with emphasis on services, personnel, financial aspects, facilities, and evaluation. Current issues and trends as reflected in the literature. Field trips to school library media centers.

**445-3 Library Media for Young Adults.** The selection and use of books and other educational media for students in the junior high and senior high school.

**450-3 Photography for Teachers.** Photography as a tool of communication in the modern school. Techniques of camera handling, visually planning a story, macro-photography, and color slides. A \$10 laboratory fee is required.

**451-3 Photographic Preparation of Educational Media.** Techniques of photography used in producing prints, overhead transparencies, daylight slides, high contrast materials, picture stories, filmstrips, and other photographic instructional materials. Prerequisite: 450 or consent of instructor. A \$10 laboratory fee is required.

**453-3 Production of Educational Media I.** Principles, skills, and techniques in the design and production of basic nonphotographic educational media. Experience includes applying lettering, coloring, and mounting techniques to projected and nonprojected media. A \$10 laboratory fee is required.

**455-3 Organization and Production of Media for Self-Instruction.** The study of various programming techniques and the procedures used in producing, designing, and evaluating materials used for self-instructional purposes. Includes organizing a teaching segment and producing the needed materials to create a self-instrumental package.

**458-3 Classroom Teaching with Television.** Classroom utilization of open and closed circuit television. Emphasis is placed on the changed role of the classroom teacher who uses television. Evaluation of programming, technicalities of ETV, and definition of responsibilities are included. Demonstration and a tour of production facilities are provided.

**462-3 Middle and Junior High School Programs.** Focuses on the development of middle and junior high school curriculum and the identification of instructional activities which relate to the pre and early adolescent student. It is anticipated that the student will be able to plan and develop teaching units and evaluate procedures complementary to this portion of the school structure.

**464-2 Student Activities.** Analysis of extra-class activities and programs in public schools with a focus on the status, trends, organization, administration, and problems.

**465-3 Advanced Teaching Methods.** The focus is on a variety of teaching methods and strategies which are appropriate for secondary and/or post-secondary educators. Both individual and group methods are emphasized.

**467-3 Methods and Materials in the Education of the Gifted.** Content focuses on the most appropriate instructional strategies and materials to be utilized with the gifted. Time spent practicing teaching models, designing materials and developing teaching units. Emphasis placed on techniques for individualizing instruction for the gifted and talented students.

**468-3 Science Methods for Junior and Senior High Schools.** A performance-based approach to instructional skills common to teaching natural science at the junior and senior high school levels. Three class hours and one micro teaching laboratory hour per week. Prerequisite: Education 302 or consent of instructor.

**469-3 Teaching Social Studies in the Secondary School.** Emphasis is placed upon instructional strategies and curricular designs in social studies at the junior and senior high school levels.

**480-3 Introduction to Computer Based Education.** Introduction to microcomputers and their uses in the classroom, including computer evolution, languages and authoring systems, instructional modalities, word processing, instructional management, and software evaluation. Utility functions and basic commands in programming are also introduced.

**481-3 Instructional Applications of Mainframe Computers.** Design, development, and programming of computer-assisted instructional materials using interactive, timesharing computer systems. Study of lesson design and programming, including branching and program flow, display techniques, response judging, teaching strategies, organization, and style.

**483-6 (3, 3) Instructional Applications for Microcomputers.** A study of the development and use of microcomputers systems in educational settings. Emphasis is upon the characteristics, capabilities, applications, and implications of microcomputers and microcomputer lessons, with case studies of their integration into the teaching, learning process.

**486-3 Instructional Authoring Systems.** Designed to give students experience using authoring systems, languages and utilities for the design, production, and integration of computer assisted instruction into educational settings. Tools will include Superpilot, Author, and various commercial and consortium authoring tools. Prerequisite: 480 or consent of instructor.

**495-2 to 8 Field Experience.** Supervised learning experiences in community nursery schools and public agencies. Eight hours maximum for students enrolled in preschool certification specialization only. Other students limited to an enrollment of six hours maximum. Prerequisite: consent of instructor.

**496-2 to 6 (2 to 4 per semester) Field Study Abroad.** Orientation and study before travel, readings, reports, and planned travel. Includes visits to cultural and educational institutions. Maximum credit hours in any term is 4.

**498-1 to 15 (1 to 3 per topic) Workshops in Education.** Critical evaluation of innovative programs and practices. Acquaints teachers within a single school system or in a closely associated cluster of school systems with the philosophical and psychological considerations and methods of implementation of new programs and practices in each of the following areas: (a) curriculum, (b) supervision for instructional improvement, (c) language arts, (d) science, (e) mathematics, (f) reading, (g) social studies, (h) early childhood education, (i) elementary education, (j) the middle school, (k) secondary education, (l) school library media, (m) instruction, (o) environmental education, (p) children's literature, (q) family studies, (r) computer based education, (s) gifted and talented education, and (t) teacher education. Maximum of six hours toward a master's degree. Prerequisite: consent of instructor.

**500-3 Introduction to Research Methods in Education.**

**501-3 Organization and Administration of Reading Programs.**

**503-3 Introduction to the Curriculum.**

**504-3 Systematic Approaches to Instruction.**

**506-3 Professional Services for Diverse Family Structures.**

**507-3 Impact of Public Intervention on Family Life.**

**508-3 Supervision of Professional Education Experiences.**

**509-3 Foundations of Environmental Education.**

**510-3 Values Education Curriculum.**

**511-3 Seminar in Psychology of Elementary School Subjects.**

**512-3 Reading in the Elementary School.**

**513-3 Kindergarten-Primary Reading.**

**514-3 The Pre-School Child.**

**515-3 Advanced Remediation in Mathematics.**

**516-3 Teaching Mathematics in the Elementary School.**

**517-3 Early Childhood Programs: Organization and Administration.**

**518-3 Early Childhood Curriculum and Methods.**

**519-3 Early Child Development Through Home and Preschool.**

**520-3 The Language Arts in Bilingual Classrooms.**

**521-8 (4, 4) Diagnosis and Correction of Reading Disabilities.**

**522-3 Teaching Reading Skills to College Students.**

**523-3 Language Arts in the Elementary School.**

**524-3 Teaching the Social Studies in the Elementary School.**

**525-3 Applications of Microcomputers to Mathematics Education.**

**526-3 Problems in Elementary School Science Education.**

**527-3 Advanced Family Studies.**

**528-3 Methods for Teaching Mathematics in the Preschool and Early Childhood Grades (Pre K-3).**

**529-3 Modern Approaches to Teaching Secondary School Mathematics.**

**530-3 Teaching Problem Solving in School Mathematics (Grades K-8).**

**531-3 The Elementary School Curriculum.**

**532-3 Courseware Design and Analysis.**

**533-3 Instructional Leadership in Elementary Education.**

**534-3 Organization of the Elementary School.**

**538-3 Organization of the Nonbook Collection.**

**539-3 Reference Services of the Media Program.**

**540-3 Mass Communication in Education.**

**542-3 Administration of an Educational Media Center.**

**543-3 Automation of Information Centers.**

**544-3 Community College Media Programs.**

**546-3 The Library of Congress Classification Scheme.**

**548-3 Production of Educational Media II.**

**549-2 Designing Multi-Image Learning Materials.**

**551-3 Survey of Research and Developments in Educational Media.**

**553-2 Instructional Design.**

**554-3 Utilization of Educational Media.**

**555-3 Visual Communication.**

**556-3 Learning Discovery Systems in the Computerized Classroom.**

**560-3 Instructional Television.**

**561-3 Reading in the Secondary School.**

**564-3 Curriculum Development for Gifted Students.**

**566-3 Instructional Strategies for Problem Solving.**



- 569-3 Principles and Trends in Secondary School Social Studies Education.
- 571-3 Secondary School Curriculum.
- 572-2 History and Philosophy of Bilingual/Bicultural Education.
- 573-3 Perspectives on the Future and Its Schools.
- 574-2 Psycho- and Sociolinguistic Considerations in A Bilingual/Bicultural Classroom.
- 577-3 Seminar in International Mathematics Education.
- 578-3 Advanced Study of Mathematics Education.
- 580-3 Current Developments in Major Subject Areas in Secondary Schools.
- 582-3 Advanced Research Methods in Education.
- 583-3 Instructional Theory, Principles, and Practices.
- 584-3 Curriculum Theory, Foundations, and Principles.
- 585-1 to 15 (1 to 3 per semester) Topical Seminar.
- 586-3 Curriculum Design and Development.
- 587-3 Curriculum Implementation and Evaluation.
- 589-3 The Work of the Director of Curriculum and Instruction.
- 590-1 to 15 (1 to 3 per semester) Independent Readings.
- 593-1 to 15 (1 to 3 per semester) Individual Research in Education.
- 594-(2 to 9 per topic) Practicum.
- 595-(2 to 8 per topic) Internship.
- 596-3 to 6 Independent Investigation.
- 599-1 to 6 Thesis.
- 600-1 to 32 (1 to 16 per semester) Dissertation.
- 601-1 to 12 per semester Continuing Research.

## Dental Hygiene (Program, Major, Courses)

This program of study is designed to prepare the student to successfully enter the health profession of dental hygiene. Upon completion of the program, the graduate should be capable of passing the written National Board Examination, and the appropriate State/Regional Board Examination including any clinical and/or written portion.

The primary role of dental hygienists is dental education and prevention of oral disease. Therefore, they must have a basic knowledge of the human body and a detailed knowledge of the oral cavity. The student develops skill, dexterity, and use of judgment in procedures relating to preventive dentistry on clinical patients scheduled in the dental hygiene clinic. Services provided by the dental hygienist are regulated by laws which vary among the states, but all include the services of scaling and polishing teeth, radiographic examination, patient education and nutritional counseling, application of preventive medicaments, administrative procedures, chairside assisting techniques, and some laboratory techniques. All the services performed in the clinic are under the direct supervision of licensed faculty and the supervision of a dentist.

Since the curriculum includes many science courses the entering student should have a thorough background in the basic sciences including chemistry, biology, and general sciences. Facilities limit enrollment to 50 students admitted only in the fall semester. Additional application information and procedures are required other than that required for admission to the University. Additional expenses of approximately \$2500 are required to cover the cost of instruments, uniforms, insurance, and other items in addition to textbooks and tuition.

The program is served by an advisory committee made up of practicing dentists and dental hygienists. The committee membership is made up of the following: dean, School of Dental Medicine, Southern Illinois University at Edwardsville; president, Southern Illinois Dental Society; dentist and dental hygienist; Veteran's Administration Hospital, Marion; dentist, Federal Penitentiary, Marion; president, Illinois Dental Association; chief, Division of Dental Health, Department of Public Health, State of Illinois; practicing dentists and dental hygienists, within the state of Illinois; and a student member.

A licensed dental hygienist may be employed in private practice offices, in

school systems, in public health, in research, in administration, in government institutions, or as a commissioned officer in the armed services.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University graduating with an Associate in Applied Science degree from the School of Technical Careers. This program is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

**Associate in Applied Science Degree, School of Technical Careers**

*Requirements for Major in Dental Hygiene*

GE-A 106.....	3
GE-B 202, Sociology 321 .....	6
GE-D 101, 152 .....	6
Microbiology 201 .....	4
Allied Health Careers Specialties 141.....	4
Dental Hygiene 126, 133, 137, 138, 147, 201, 208, 209, 211a,b, 217, 218a,b, 226, 238, 240, 241, 248, 310a,b, 311a,b, 315, 348.....	60
<i>Total</i> .....	83

**Courses**

**126-3 Oral Anatomy and Tooth Morphology.** The student will learn to recognize and identify in detail the structures within the oral cavity including the tongue, salivary glands, lips and cheeks, and cheeks and teeth, both permanent and primary. Laboratory emphasis will be placed on tooth identification, tooth and root morphology, and occlusal relationships to enhance application of instrumentation techniques. Lecture two hours, laboratory two hours.

**133-2 Histology and Embryology.** The student will learn the microscopic components of the primary tissue groups of the human body and will be expected to identify microscopically in detail, the dental tissues of the oral cavity. The course also enables the student to relate the embryonic development of the head to the normal and abnormal structures of the adult head and oral cavity. Lecture two hours.

**137-5 Pre-Clinical Dental Hygiene.** The student is introduced to the profession of dentistry with emphasis on the role and duties of a hygienist. Basic skills and techniques of instrumentation will be acquired using manikins in the laboratory followed by clinical experience on selected patients. Included will be didactic instruction in normal and abnormal tissue conditions, the role, function, and structure of hard and soft deposits, and stain. Additional skills, techniques, and procedures include clinical rules and procedures, aseptic technique, oral inspection, rules of professionalism, etc. Lecture two hours, laboratory six hours.

**138-2 Oral Pathology.** The student will learn to recognize the appearance, causes, and body's responses to pathological conditions including congenital disorders, circulatory, and neurological ailments, tumors, and neoplasms. Pathologic related physiology is also included over an area on a cellular level such as tissue regeneration, inflammatory process, and wound healing. Lecture two hours. Prerequisite: Allied Health Careers Specialties 141.

**147-1 Preventive Dentistry.** The course is designed to introduce the student to basic preventive dentistry measures. Subject matter is presented that is important in the understanding of the causes and means to control dental caries and periodontal disease. Emphasis is placed on assessment of patient's dental needs and planning for patient treatment. Lecture one hour. Prerequisite: 137.

**201-4 Dental Materials and Assisting Techniques.** The student will study the physical and chemical properties of various dental materials used in dental practice including plaster and stone, impression materials, synthetic resins, metals, and cements. In the laboratory the student will manipulate those dental materials and recognize the effects of proper and improper techniques. Emphasis will be placed on dental assisting techniques for both operator and laboratory in the generalist and specialist type of practices. Lecture three hours. Laboratory three hours. Prerequisite: 209, GE-A 106.

**208-4 Clinical Dental Hygiene.** The student will continue to apply information and skills learned in 137 on selected patients with varying oral hygiene needs. New information, procedures, and skills will be introduced during the course and incorporated into the clinical procedures. Laboratory eight hours. Prerequisite: 126, 133, 137.

**209-3 Dental Hygiene Clinic.** The student will perform professional services of a hygienist on designated clinical patients and is expected to demonstrate improvement of skills covered in 137 a, b. Additional skill incorporated into clinical procedures include application of fluoride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, ex-



tended or home care education, auxiliary polishing devices, caries etiology tests, and nutritional counseling. Laboratory 12 hours, eight weeks. Prerequisite: 208.

**211-2 (1, 1) Seminar.** (a) The course presents to the student procedures and techniques that will be incorporated into concurrent clinic courses including advanced instrumentation and clinical problem solving. Emphasis is placed on patient management and advanced emergency techniques. (b) The course continues to provide correlation between didactic material and clinical application. Emphasis is placed on development of plaque control programs. Lecture two hours. Prerequisite: 137, 147.

**217-2 Dental Nutrition.** The biologic functions of essential nutrients are studied in their relation to growth and development of dental and oral tissues. Nutrition in health and disease is considered in detail; food sources of essential nutrients are identified. Knowledge gained is applied to the nutritional management and prevention of dental health problems in clinical practice through dietary counseling. Lecture four hours, eight weeks. Prerequisite: GE-A 106, Allied Health Careers Specialties 141.

**218-4 (2, 2) Dental Radiology.** (a) The student will learn the techniques of exposing, processing, and mounting bitewing and periapical dental x-ray surveys, and will learn how x-rays are produced, hazards and precautions in using x-ray equipment, and the chemical composition and action of processing solutions on x-ray film. In the laboratory, the student will receive individual assistance in learning the techniques of exposing and processing films. (Lecture three hours. Eight weeks.) Prerequisite: 126, 137, GE-A 106. (b) The student will learn special dental survey techniques including paralleling, occlusal, and special views, and will identify anatomical landmarks and recognize appearance of pathological conditions as viewed on dental x-rays. In the laboratory the student will receive assistance in learning special survey techniques. Lecture one hour. Laboratory two hours. Must be taken in a, b sequence. Prerequisite: 218a.

**226-2 Anatomy of the Head and Neck.** The student will study the detailed anatomic structure including skull, muscles, nerves, and blood supply. This course will provide concepts for understanding of anatomic structures of the head and neck and their functional relationships. Lecture two hours. Prerequisite: 126.

**238-2 Oral Pathology.** Special attention will be placed on pathological conditions of the oral cavity including dental caries, periodontal disorders, and lesions of the hard and soft tissues. The student will apply this knowledge by giving intra and extra oral examinations on selected patients and recording the findings. Lecture two hours. Prerequisite: 138, 226.

**240-2 Dental Pharmacology and Anesthesia.** The student will recognize the various types of drugs, their actions and effects on tissues of the body. Special emphasis will be placed on those drugs most commonly prescribed by the dentist. The student will study the anesthetics most commonly used in a dental office and the techniques of administering them. Lecture two hours. Prerequisite: GE-A 106, Allied Health Careers Specialties 141, Microbiology 201.

**241-2 Periodontology.** The student will be introduced to the specialty of periodontics, including a review of the topics of classification, etiology, and the treatment of periodontal disease. Clinically, the student will perform a complete examination, scaling and root planning for the periodontal patient as presented in theory in this course. Consideration will also be given to special adaptations and recommendations of oral physiotherapy for the periodontal patient. Prerequisite: 126, 209, 217, 218b, Microbiology 201.

**248-2 Dental Public Health and Community Dentistry.** The student is introduced to the general principles of public dental health and community dentistry including hierarchy and history of the public health system; dental needs, supply and demand; purchase of dental care; and general principles of research in public health. An overview of types of community dental health programs are studied, with emphasis on the role of the dental hygienist in the community. Lecture two hours. Prerequisite: 147, 208, 209.

**310-12 (6, 6) Clinical Dental Hygiene and Radiology.** (a) The student continues clinical experience and is expected to show improvement in skills and abilities. Additional procedures include application of stannous fluoride, patient control programs, complete charting of the oral cavity, care of dental prosthesis, use of ultrasonic cleaning devices, measurement of periodontal pockets, and maintenance of dental equipment. Additional clinical experience is provided in the Model Cities clinic. Students will continue to take dental radiographs on clinical patients as a part of the required clinical experience. Laboratory twelve hours. Prerequisite: 209, 217, 218b, Microbiology 201. (b) The student will continue to perform the professional services of a hygienist on designated clinical patients and will be expected to demonstrate improvement of skills covered in 137 and 209. Those skills incorporated into clinical procedures include application of fluoride gels, maintenance and sharpening of scaling instruments, recognition and detection of carious lesions, extended home care education, auxiliary polishing devices, caries etiology tests, and nutritional clinical experience. Laboratory twelve hours. Prerequisite: 209, 310a, concurrent enrollment in 311b.

**311-2 (1, 1) Senior Seminar.** (a) The course presents to the student advanced clinical techniques and provides an opportunity for clinical problem solving. Emphasis in this phase of the course is placed on development of recall systems treating patients with special needs and the use of case presentations. Prerequisite: 211. (b) The course focuses on advanced clinical techniques and application. Clinical problem solving is practiced in conjunction with case presentation of actual clinic cases. Emphasis is placed on treatment of patients with special needs, hazards within the dental office, and skills needed for locating employment. Lecture two hours. Prerequisite: 211.



**315-2 Ethics, Jurisprudence, and Office Management.** The student will be able to identify the rules of conduct and behavior appropriate for dental professionals. Professional ethics and legal responsibilities will be distinguished as two separate topics. Evaluation processes will be worked through as in role playing to help students assess the appropriate steps to make professional decisions. Office management will be explored as an alternative career responsibility as well as conventional office procedures. Lecture two hours. Prerequisite: 208, 209, 310a.

**348-2 Practicum in Dental Public Health and Community Dentistry.** The student will continue to study the principles of dental public health and community dentistry. Types of dental health education programs are studied with emphasis on special population groups. Program planning, implementation, and evaluation are discussed in detail. The student will develop and present dental health education programs according to these principles. Lecture one hour, laboratory two hours. Prerequisite: 248.

## Dental Technology (Program, Major, Courses)

The dental technology program prepares the student to be a competent dental technician in the commercial laboratory, an educational institution, a dental manufacturing company, or the private dental office. To implement the goal, the prospective student must satisfactorily meet the requirements of courses in both the dental technology area and in the science, business, and humanities area.

Persons interested in careers in dental technology should have a sincere interest in working with their hands and find satisfaction in their creative work.

Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

The program is served by an advisory committee made up of practicing dentists, dental laboratory owners, dental technicians, dental sales representatives, and a second year dental technology student.

Graduates of the two-year dental technology program find that career opportunities are excellent. The trained dental technician not only has a wide choice of geographic location for the pursuit of a career, but can also choose working conditions. Graduates are employed by commercial dental laboratories, dental schools, dental supply companies, private dental offices, or are self-employed in their own dental laboratories.

The student should expect to spend about \$700 for a dental kit, laboratory jacket, and Delta Tau Club, and recognized graduate exam fee over the two-year period.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experience.

### Associate in Applied Science Degree, School of Technical Careers

#### *Requirements for Major in Dental Technology*

GE-D 101, 152 .....	6
GE-A 101, 106 .....	6
School of Technical Careers 102, 120 .....	5
Dental Technology 102, 103a,b, 104a,b, 110, 113a,b, 128, 143, 202, 204a,b, 205, 206a,b, 210 .....	60.5
<b>Total</b> .....	<b>77.5</b>

### Courses

**102-4.5 Tooth Anatomy.** The student will be able to write definitions of the nomenclature of teeth; draw five different peripheral views of maxillary and mandibular teeth; carve maxillary and mandibular teeth in plaster, three times natural size and in wax, natural size; wax maxillary and mandibular teeth on dentoform models. Lecture three hours. Laboratory 17 hours. Five weeks.

**103A-4.5 Complete Dentures I.** The student will be able to write the steps of denture construction; identify and use lab stone, lab plaster and acrylic resins; construct edentulous casts, custom trays, base plates, occlusal rims, mount casts on non-adjustable articulators; and set up, contour,



invest, and process and finish a complete denture. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 102.

**103B-4.5 Complete Dentures II.** The student will be able to describe the theory inherent in all phases of full denture construction; bead and box an impression, set up anatomical, semi-anatomical, and non-anatomical teeth on non-adjustable and semi-adjustable articulators; select and set up teeth for different classes of arch forms; contour, flask, process, and finish complete dentures; relin, rebase, and repair full dentures; set up and process immediate denture and surgical tray. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103A.

**104A-4.5 Removable Partial Dentures I.** The student will be able to write the basic steps of partial denture construction, identify and use impression material, gypsum products, surveyors, dental waxes, clasp designs, and partial denture alloys; mount master casts, survey, design, and cast a framework. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 102.

**104B-4.5 Removable Partial Dentures II.** The student will be able to describe and do the planning, designing, and surveying of partial dentures; construct refractor casts, wax, invest, and finish several partial denture frameworks; articulate, set up denture teeth on partial frameworks, wax, invest, process, and finish acrylic bases; and repair broken frameworks. Lecture three hours. Laboratory 17 hours. Prerequisite: 104A.

**110-4 Dental Occlusion.** The student will be able to write and identify the basic anatomy of the oral facial structure, and the theory inherent to occlusion. The theory will include the physiology of occlusion, the determinants of occlusion, and popular occlusion theories or techniques. The laboratory aspect will include building wax occlusions such as cusp/marginal ridge and cusp/fossa occlusal contacts, including waxing of natural dentition. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 103B, 104B.

**113A-2 Science of Dental Materials.** The student will be able to: identify orally, as well as written, the uses and composition of dental gypsum products, namely, plaster, stones, and investments, impression materials, dental resins, dental cements, polishing agents, abrasives, and dental waxes. Lecture two hours.

**113B-2 Science of Dental Materials.** The student will be able to identify orally, as well as written, the physical and mechanical properties of metals and alloys, namely, dental golds, chrome cobalt alloys, and nickel cobalt alloys; the control of their physical properties, namely, strain hardening, alloying and heat treatment, the chemistry of tarnish and corrosion, gypsum investments for inlay procedures, casting and soldering techniques, and dental porcelains. Lecture two hours.

**128-1 Oral Anatomy.** The student will be able to identify the anatomical features of the head and oral cavity; identify the blood and nerve supply to the oral cavity and area; be able to list the muscles of mastication, and know the origin and insertion of each muscle; identify the anatomical parts of the maxilla and mandible; differentiate the movements of the mandible; and be able to identify the temporomandibular articulations. Lecture one hour.

**143-1 Orientation to Dental Technology.** The student will be able to identify pertinent dates and contributions made by people in the history of dentistry and the dental laboratory industry; identify specialties of dentistry and dental technology; identify organizations affiliated with the dental laboratory industry, identify ethics and laws regulating the dental profession, identify laboratory safety procedures, equipment maintenance and areas of possible cross contamination in the dental laboratory, and identify current issues of dentistry.

**202-4.5 Orthodontics and Pedodontics.** The student will be able to pour and trim orthodontic models, fabricate a maxillary Hawley, mandibular Hawley, holding arch, space maintainer, arch expander, tongue thrust and thumb habit appliances, occlusal palatal splint, bite planes, operate welding machine, orthodontic model trimmer, orthodontic blowpipe, write the gauges of wire that are used for the orthodontic appliances, identify the functional appliances and their clinical applications, and write the theory associated with the use of the appliance. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 110.

**204A-4.5 Crown and Bridge I.** The student will be able to write definitions of the nomenclature for crown and bridge I prosthetics; communicate orally and in writing the theory necessary for successful completion of the laboratory projects; construct working models, full cast crowns, inlays and veneer crowns. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 202.

**204B-4.5 Crown and Bridge II.** The student will be able to write definitions of the nomenclature for crown and bridge II prosthetics; communicate orally and in writing the theory necessary for completion of the laboratory projects; construct working models, multiple unit bridgework, broken stress bridgework, crown under an existing partial denture, opposing crowns, and soldering procedures. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 204B.

**205-1 Dental Laboratory Management.** The student will be able to identify how the following areas of management relate to the dental laboratory technician and the dental laboratory industry: principles and practices of management, marketing management, financial management, human resource management, and production management.

**206A-4.5 Dental Ceramics I.** The student will be able to construct porcelain jackets and porcelain-to-ceramic alloy restorations. Included will be cast preparation, waxing for porcelain bonded to ceramic alloy, casting, finishing, and porcelain firing techniques. Related theoretical concepts will be presented. The correct use and function of finishing and casting equipment and porcelain furnaces will be included. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 202.

**206B-4.5 Dental Ceramics II.** The student will be able to construct porcelain bonded to ceramic alloy restorations. Included will be veneer and full coverage porcelain restorations and bridges using modern methods and techniques. Fabrication of porcelain laminates will be included. Also, the theory involved in conventional and new techniques for porcelain-to-metal restorations will be included as well as color control, and staining procedures. Lecture three hours. Laboratory 17 hours. Five weeks. Prerequisite: 206A.

**210-4.5 Applied Prosthodontics.** The student will be able to complete removable prosthodontic cases per directions of the dentist's prescription. Emphasis is on fabricating removable dental prosthesis on practical laboratory models. Laboratory 20 hours. Five weeks. Prerequisite: all 100 and 200 level dental technology courses.

## Design

(SEE ART)

## Early Childhood Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Earth Science (Minor)

This course of study is designed for the student with an interest in the interdependent dynamic processes that take place on and near the earth's surface. At present the program is structured to complement a major in another discipline. This work may be taken through the College of Liberal Arts, the College of Science, or the College of Education.

A minor in earth science consists of a core program of 13-15 hours and 9 to 11 hours of electives, as follows:

Core program . . . . . 13-15

GE-A 110, GE-A 330 or Geography 331 and Geography 302

Plant and Soil Science 446 or GE-A 312

Geology 221

Electives . . . . . 9-11

Appropriate substitutions may be made with the approval of the adviser.

GE-A 240

Geography 310, 432, 424, 438

Geology 310, 425

Plant and Soil Science 240

## Economics (Department, Major, Courses)

The study of economics provides a useful means of analyzing the behavior of consumers, businesses, and government so that the student can better understand many of the problems facing contemporary society. Majoring in economics gives the student an analytical ability and flexibility that is attractive to a wide range of employers in both business and government. Economics is also an excellent major for students who are considering graduate school in law, business, or any of the social sciences.

The economics major in the College of Liberal Arts provides a flexible program with 26 to 33 hours of electives. This flexibility allows the student to follow a program oriented toward a wide range of careers in government and business or to prepare for graduate study in any of several areas.

Economic courses at the 300 level generally require only a limited background



in introductory economics, while many economics courses at the 400 level require Economics 340 (440) and 341 (441) as prerequisites. Students considering graduate study in economics should also plan to take Economics 340 and 341 as early in their college careers as possible and should choose several courses at the 400 level to complete their major requirements. A student considering graduate study in economics should plan to take Mathematics 250 and Economics 465.

For transfer students, equivalent economics courses will be accepted from other institutions. However, to complete a major in economics, a student must earn credit in no fewer than five economics courses taken at Southern Illinois University. To complete a minor in economics, a student must earn credit in no fewer than three economics courses taken at Southern Illinois University.

Students are urged to discuss their major programs with the director of undergraduate studies or with any other professor in the Department of Economics; the department also has a director of career information and placement available for consultation.

Courses where a Pass/Fail grade is earned will not be counted as fulfilling the requirements for a major in economics without the written consent of the director of undergraduate studies.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> . . . . .	45
<i>Supplementary College Requirements</i> (See page 94). . . . .	(4) + 8-14
<i>Requirements for Major in Economics</i> . . . . .	34-35
One course from the following all of which are approved substitutes for GE-D 107: Mathematics 117, 140, 150. The student will automatically satisfy a portion of the General Education Area D requirements with any one of these courses. Three hours are already included in total hours shown for General Education	
Requirements . . . . .	(3) + 1-2
Economics 214, 215, 308, 340, 341, 408 . . . . .	18
Any five remaining economics courses except 301. . . . .	15
<i>Electives</i> . . . . .	26-33
<i>Total</i> . . . . .	120

**Honors Program**

Students who are economics majors and working toward a Bachelor of Arts degree in the College of Liberal Arts may choose to enter the Honors Program if they have a minimum cumulative grade point average of 3.0 in all prior courses in economics.

As part of the ten economics courses required for a major, students in the honors program will be required to take 443 and any two other 400-level economics courses, except 408, 425, 440, 441, 471, and 479.

In order to be granted departmental honors, a student must have attained at graduation a minimum cumulative grade point average of 3.0 in economics courses taken.

**Minor**

For students majoring in other departments, a minor in economics is useful for employment in business or government and for graduate work in any of the social sciences, law, or business. The minor requires 15 hours of work in economics including Economics 214 and 215, but excluding Economics 301. A minimum grade point average of 2.0 must be achieved in the 15 hours of economics courses counted toward the minor. Students are urged to discuss their minor program with an economics adviser in order to assist students in designing coherent programs to meet their individual needs.

## Courses

**214-3 Introduction to Macroeconomics.** Determination of income, employment, output and price levels in the national economy; government taxation, expenditure, and monetary policies to solve problems such as inflation and unemployment.

**215-3 Introduction to Microeconomics.** Study of businesses, consumers, and the government and their effects on prices, output and income distribution. Current economic problems will be used as illustrative examples.

**300-3 to 9 Contemporary Economic Problems.** A study of one or more contemporary economic problems. Problems chosen vary from semester to semester and the topic will be announced in advance. Prerequisite: 214, 215 or GE-B 211 or consent of instructor.

**301-1 to 6 Economic Readings.** Readings in books and periodicals in a defined field, under direction of one or more faculty members. Periodic written and oral reports. Prerequisite: consent of instructor and department chairperson.

**303-3 Poverty and the Economy.** Poverty as a study of income inequality. Economic determinants of income inequality are isolated and related to current policy proposals.

**304-3 Economics of the Welfare State.** Analysis of programs and proposals attacking poverty, insecurity, inequality of opportunity, and maldistribution of income. Analyzes such programs as social security, unemployment compensation, medical care, income maintenance, public assistance, housing, and job creation. Economic foundations and consequences are linked with social and political problems.

**308-3 Economic and Business Statistics.** Survey of the foundations and applications of the principal statistical methods used in economic and business decision making. Included are probability theory, probability distributions, and testing hypothesis about, and estimation of, the important types of population parameters. Prerequisite: Mathematics 117 or 140 or equivalent.

**310-3 Labor Problems.** A comprehensive overview of the relation of labor to the United States economy. Included are the history of labor in the United States; analysis of institutions affecting labor; the theory of wage and employment determination; as well as analyses of unions and collective bargaining, discrimination, unemployment, and the distribution of income. Prerequisite: 215 or consent of instructor.

**312-3 Collective Bargaining and Dispute Settlement.** An analysis of the economic social effects of collective bargaining with an examination of its legal framework in the private and public sectors. Special attention to issues discussed in bargaining and to procedures for settling disputes. Readings and cases. Prerequisite: 310 or consent of instructor.

**315-3 Money and Banking I.** Study of the operation of the money and banking system in the United States. Stresses Federal Reserve control of the money supply and credit conditions to combat inflation and unemployment. Monetary arrangements and problems among nations are also considered. Prerequisite: 214 or consent of instructor.

**318-3 Economic History of Europe.** The economic growth and development of the European economies from the middle ages to the common market. Topics include the rise of the market system, the development of capitalism and the systematic growth of European economic integration. Prerequisite: 214 or GE-B 211 or consent of instructor.

**320-3 Economic History of the United States.** The dynamic process of American economic growth and development from its colonial beginnings to its status as world economic power. Particular emphasis is given to the changing role of the United States in the developing world economy and the contribution of changing economic institutions to the character and pace of American economic growth. Prerequisite: 214 or consent of instructor.

**322-3 Introduction to Economic Development.** An analysis of the preconditions, processes, and problems involved in economic development. Both the theory and policy relevant to development, with special emphasis on the developing or emerging economies, are stressed. Prerequisite: 214 and 215 or consent of instructor.

**323-2 Operation of Public Utilities.** The study of public utilities regulation, electrical utility, load factors, rates fixed, and operating costs, power plant economics, and distribution policy. Prerequisite: GE-B 211 or consent of instructor.

**329-3 Introduction to International Economics.** Introduction to the principles of international economics. Stresses the relationship between the balance of payments and the United States economy, the determinants of deficits and surpluses, and policy options to correct an imbalance. Prerequisite: 214 and 215 or consent of instructor.

**330-3 Public Finance.** Effects of government spending and taxing activities on the rest of the economy. Analysis of government debt, the federal budgetary process, and various taxes used in the United States. Prerequisite: 215 or consent of instructor.

**333-3 Economics of the Environment.** Factors which lead to physical and human deterioration in a market economy. Consideration of solutions to such problems as urban decay, overpopulation, and pollution. Prerequisite: 214, 215 or consent of instructor.

**334-3 Health Economics.** Factors underlying the demand for and supply of health and medical care services. Included are the market, voluntary nonprofit, and governmental sectors of the industry. Special topics are the regional coordination of hospital facilities and services, the consumer price index and the measurement and costs of control programs.

**340-3 Intermediate Microeconomics.** A survey of theories of household, firm, and government economic behavior in the determination of competitive and non-competitive market prices. Em-



phasis is on understanding the United States economic system and on evaluating existing and proposed government microeconomic policies designed to improve the system. Not open to students who have had Economics 440. Prerequisite: 215 or consent of instructor.

**341-3 Intermediate Macroeconomics.** The determinants of fluctuations in aggregate economic activity, unemployment and inflation. An analysis of the behavior of consumption and investment, the impact of government monetary and fiscal policies, and factors affecting the rate of economic growth. Not open to students who have had Economics 441. Prerequisite: 214 or consent of instructor.

**361-3 Regional and Urban Economics.** A survey of regional and urban economic growth and the associated problems, including disparities among regions in income and employment. Examination of governmental policies aimed at reducing or eliminating such problems as depressed areas and urban blight. Prerequisite: 214, or 215, or consent of instructor.

**375-3 Economics of Antitrust.** An economic analysis of government policies intended to limit and/or control the exercise of private monopoly power. Prerequisite: 215 or consent of instructor.

**408-3 Economics and Business Statistics II.** A continuation of 308 which includes the construction, interpretation, and use of economic data. Topics include correlation, regression, decisionmaking, index numbers, time series analysis, forecasting, and other statistical techniques used in analyzing economic and business data. This course will not count as graduate credit for economics majors. Prerequisite: 308 or equivalent.

**416-3 Money and Banking II.** An examination of the principle institutions whose joint actions determine the supply of money in the United States economy. Emphasis is placed on the commercial bank operating as a firm within the Federal Reserve System. Policy issues are examined for the regulation of the banking industry as well as for the control of the domestic money supply. Prerequisite: 315, or 340, or 341, or consent of instructor.

**419-3 Latin American Economic Development.** Special attention to contemporary policy issues and alternative strategies for development. Among the topics included are inflation and financial reform, international trade and economic integration, foreign investment, and agrarian reform. Prerequisite: 322, or 340, or 341, or consent of instructor.

**420-3 The History of American Growth in the 20th Century.** An analytical survey of American growth in the present century. Concentrates on problems associated with the United States' role as a world economic power and changes in economic institutions engendered by rapid technological change and the need to cope with such problems as income distribution, equity, the growing public sector, inflation, unemployment, and others. Prerequisite: 340, or 341, or consent of instructor.

**425-4 Economics in Geography and Planning.** (Same as Geography 422.) Concepts, symbols, language, theory, elementary mathematics of economics, and geography. Individual's preferences, production functions, the firm, markets optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: Geography 300 or consent of instructor.

**429-3 International Trade and Finance.** Analysis of the pattern and volume of world trade and capital flows; effects of trade and payments on the domestic economy; problems and methods of adjusting to change in the balance of payments. Prerequisite: 340 and 341 or consent of instructor; and Mathematics 117, or 140, or 150, or consent of instructor.

**431-3 Public Finance II.** State and local. Analysis of the economic effects, problems, and alternative solutions concerning state and local government expenditures, revenues, and debt. Prerequisite: 330 or 340 or 341 or consent of instructor.

**436-3 Government and Labor.** Influence of government and law on collective bargaining, on the internal operation of unions, and on job discrimination in the public and private sectors. Prerequisite: GE-B 211 and 212 or equivalents or consent of instructor.

**440-3 Price, Output, and Allocation Theories.** A systematic survey of theories of product prices, wage rates, rates of production and resource utilization under conditions of competition, monopolistic competition, oligopoly and monopoly markets. Emphasis is on developing analytical tools useful in the social sciences. Not open to students who have had Economics 340. Prerequisite: 215 or consent of instructor.

**441-3 Contemporary Macroeconomic Theory.** An examination in the causes of inflation, unemployment, and fluctuations in aggregate economic activity, factors affecting consumption and investment, and the sources of economic growth. Emphasis is on understanding contemporary United States macroeconomic problems and the options for fiscal, monetary, and income policies facing the United States government. Not open to students who have had 341. Prerequisite: 214 or consent of instructor.

**442-3 Monopoly and Competition in the Industrial State.** A survey of economic theories and empirical studies on the nature and consequences of business rivalry in imperfectly competitive markets. Prerequisite: 340, or 440, or consent of instructor; and Mathematics 117, or 140, or 150, or consent of instructor.

**443-3 Honors Seminar in Economics.** Application of the tools of economic analysis to the study of contemporary social problems. Enrollment limited to economic majors who have a minimum cumulative grade point average of 3.0 or higher in all prior economics courses. Economics graduate students are not permitted to enroll in this course. Prerequisite: 340 and 341; and Mathematics 117, or 140, or 150, or consent of instructor.

**450-3 History of Economic Thought.** An analytical study of the development of economic

ideas, with special reference to historical and societal context, central thrust, and impact. Such benchmark figures as Smith, Marx, Marshall, Veblen, and Keynes are highlighted and major schools of economic thought are identified. Prerequisite: 214 and 215; or GE-B 211; or consent of instructor.

**465-4 Mathematical Economics I.** A systematic survey of mathematical economics. Application of basic mathematical tools to economic analysis, and a restatement of economic theory in mathematical terms. Prerequisite: 340 or 440, and Mathematics 117 or 140, or consent of instructor.

**467-3 Introduction to Econometrics.** Introduction to the use of statistical inference and distribution theory for measuring and testing economic theory. Emphasis placed on the linear model, least square estimation, hypothesis testing, and the underlying assumptions. Prerequisite: 308; Mathematics 117, or 140, or 150 or consent of instructor.

**471-3 Land Resource Economics.** (See Agribusiness Economics 440.)

**479-3 Problems in Business and Economics.** Application of economic theory and tools of analysis to practical business problems. Cost and demand functions, and forecasting are analyzed from a policy standpoint. Prerequisite: 215; 308 or Administrative Sciences 208; Marketing 304; Mathematics 117, or 140, or 150 or consent of instructor.

**481-3 Comparative Economic Systems.** Capitalism, socialism, communism, and other forms of social organization are examined from a theoretical point of view. Economic and social theories from Adam Smith and Karl Marx to Milton Friedman and Paul Sweezy will be examined. Prerequisite: 340, or 440, or consent of instructor.

**500-3 to 24 (3 per topic) Economic Seminar.**

**501-1 to 21 Economics Readings.**

**502-1 to 4 Readings in Resource Economics.**

**507-1 to 4 (1, 1, 1, 1) Practicum in Undergraduate Teaching.**

**510-2 Research in Economics: Design Methodology, and Presentation.**

**512-3 Seminar in Labor Institutions.**

**517-3 Monetary Theory and Policy.**

**518-3 Monetary Theory and Policy II.**

**520-6 (3, 3) Economic Development Theory and Policy.**

**522-3 Microeconomic Foundations of Labor Markets.**

**525-4 Seminar in Economics in Geography and Planning.**

**530-3 Foreign Trade.**

**531-3 International Finance.**

**532-3 Economics of Human Resources.**

**533-3 Public Finance Theory and Practice.**

**534-3 Economics of Taxation.**

**540A-3 Microeconomic Theory I.**

**540B-3 Microeconomic Theory II.**

**540C-3 Microeconomic Theory III.**

**541-6 (3, 3) Macroeconomic Theory I and II.**

**545-3 Resource Economics.**

**546-3 Workshop in Resource Economics.**

**552-3 Seminar in Economic Thought.**

**555-3 Seminar in Economic History.**

**562-3 Seminar in Economic Systems.**

**565-3 Applied Econometric Analysis.**

**566-3 Mathematical Economics II.**

**567-6 (3, 3) Econometrics I and II.**

**570-3 Seminar in Contemporary Microeconomic Theory.**

**571-3 Seminar in Contemporary Macroeconomic Theory.**

**583-3 Methodological Foundations of Economics.**

**585-3 Seminar in Social Economy.**

**590-1 to 8 (1 per semester) Seminar in Contemporary Economics.**

**598-1 to 3 Research Paper.**

**599-1 to 6 Thesis.**

**600-1 to 36 (1 to 16 per semester) Doctoral Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Education (Courses)

### Courses

**200-1 to 10 Experimental Education.** Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

**258-1 to 4 Credit for Work Experience.** Credit granted for prior work experience relevant to the student's major program in which specific experiences with children or youth can be documented. Prerequisite: 201, 302, and consent of coordinator of professional education experiences.



**259-1 to 60 Occupational Education Credit.** Credit for educational experiences in training schools and institutes relevant to the particular departmental program. Credit hours to be determined by the associate dean for undergraduate studies.

**300-1 to 10 Experimental Education.** Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

**310-1 Study of Teaching.** Requirement in professional education sequence which cannot be waived. Introduction to major roles assumed by classroom teachers. Orientation to the Teacher Education Program and to the teaching profession. On-campus meetings during first two and last two weeks of semester. For remainder of semester, participation and observation in public schools one-half day per week on Mondays, Tuesdays, Wednesdays, or Thursdays. Placement in public school settings coordinated by Office of Teacher Education. All sections of 310 require a restricted class card which may be obtained in Wham 135. 36 clock hours. Prerequisite: admission to the Teacher Education Program.

**311-2 School and Society: Historical, Sociological, and Philosophical Perspectives.** A requirement in the professional education sequence. Fulfills the minimum state certification requirement in the history and philosophy of education. Assists students in developing an understanding of the organization, function, and role of schools in the United States. Prerequisite: admission to the Teacher Education Program.

**312-1 to 8 Field Observation and Participation.** Allows the pre-service teacher education student to observe and participate in activities and experiences relating to the offerings of their major department. These experiences will be correlated with the offerings of the student's major department, and the experiences will be designed to meet the needs of the individual student. Enrollment in this course will be coordinated by the student's major department. Placement in public school settings will be coordinated by the Office of Teacher Education. Prerequisite: 310, 311, 314a, 314b, and 315 or concurrent enrollment.

**314A-2 Human Growth, Development, and Learning.** A requirement in the professional education sequence. Deals with factors involved in the teaching-learning process including cognitive development, socio-personal characteristics, socio-cultural characteristics, motivation for learning, and principles of school learning. Prerequisite: GE-B 202 or equivalent.

**314B-1 Human Growth, Development, and Learning Laboratory.** 30 clock hours. Prerequisite: concurrent enrollment in 314A or consent of instructor.

**315-3 Organizing and Directing Instruction.** A requirement in the professional education sequence. Techniques and procedures applicable to effective teaching including planning for instruction, instructional design, and general teaching strategies. Teaching skills will be demonstrated by the students and evaluated by the instructor on a regular basis in the Teaching Skills Lab. Laboratory work also required in media production laboratory and microcomputer laboratory. 12 clock hours. A \$10 laboratory fee is required.

**316-2 Classroom Management and Discipline.** Includes techniques and procedures intended to provide teachers with skills for managing groups of students. Content includes management techniques, discipline models, child abuse identification, and reporting, field observation, and data collection in the public schools. Public school assignments are one-half day per week on Mondays, Tuesdays, Wednesdays, or Thursdays for ten weeks beginning with week five. Placement in public schools is coordinated by the Office of Teacher Education. All sections require restricted class cards. 30 clock hours. Prerequisite: 310, 314A, 314B, admission to the Teacher Education Program.

**317-2 Evaluation of Learning and Teaching.** Covers construction and use of teacher-made tests of classroom learning; interpretation and use of standardized tests of achievement, aptitude, and scholastic ability; procedures for determining and reporting grades; and procedures for measuring and evaluating instructional effectiveness. Prerequisite: 310, 311, 314A, 314B, 315, 316, admission to the Teacher Education Program, and concurrent enrollment in 400 and 401.

**350-3 Seminars in Professional Education.** A requirement in the professional education sequence. Concentrates on situations, events, and issues that frequently arise in public school work. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 400 and 401. Mandatory Pass/Fail.

**400-4 Student Teaching.** A requirement in the undergraduate professional education sequence, 400 represents preliminary student teaching experiences necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Teacher Education. For undergraduate credit only. Students majoring in special education and seeking entitlement to more than one teaching certificate in the State of Illinois may in certain instances be allowed credit for up to 8 semester hours of Education 400. Such increase in hours shall be contingent on the student enrolling in 4 hours of Education 400 in each of two semesters, and shall require the written permission of the coordinator of professional education experiences. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 401.

**401-8 Student Teaching.** A requirement in the undergraduate professional education sequence, 401 concludes the student teaching experience necessary for certification entitlement. Enrollment in this course must be arranged through the Office of Teacher Education. For undergraduate credit only. Prerequisite: admission to the Teacher Education Program, acceptance for student teaching, and concurrent enrollment in 350 and 400.



**402-5 to 8 Student Teaching for Provisionally Certified Teachers.** Offered for purposes of converting a provisional teaching certificate to a standard teaching certificate. The student teaching experience may be provided for in the position of employment under the supervision of a university supervisor. Enrollment in this course must be arranged with the coordinator of professional education experiences in the Office of Teacher Education. Prerequisite: consent of instructor, provisional certificate, and teaching experience. For undergraduate credit only.

**450-1 to 10 Experimental Education.** Offered for purposes of testing new and experimental courses and series of courses within the College of Education. Prerequisite: consent of instructor.

**550-1 to 10 Experimental Education.**

**590-4 Doctoral Seminar in Cultural Foundations of Education.**

**591-4 Doctoral Seminar in Behavioral Foundations of Education.**

## Educational Administration and Higher Education

(Department, Major [Graduate only], Courses)

The Department of Educational Administration and Higher Education does not offer an undergraduate major but offers courses for undergraduate credit over a broad range of subject matter.

### Courses

**402-1 to 3 Principles of Student Personnel Group Work.** Acquaints the student with group work possibilities and functions in higher education.

**420-3 Foundations for Differential Education of the Gifted.** The formulation and analysis of foundational bases for differential education of the gifted; i.e., establishment of an epistemological, historical, philosophical, and sociological framework for this emerging subfield of education.

**421-3 The Law, The Teacher, and The Student.** Legislative and case law including civil rights and responsibilities for the teacher and for the student.

**430-3 History of Education in the United States.** An historical study of the problems of American education.

**432-3 Education and Social Forces.** A study of the social forces that shape educational policies in the United States.

**454-3 Contrasting Philosophies of Education.** An examination of current educational problems and trends in the light of contrasting philosophies of education.

**455-3 Introduction to Adult and Continuing Education.** Introduces the multifaceted areas of adult and continuing education in traditional and non-traditional settings by reviewing and studying philosophies, directions, program efforts, and activities associated with them.

**475-3 Administration of Staff Development Programs in Adult and Continuing Education.** Review and examination of the needs, problems, administrative requirement, and alternatives available for staff development in adult and continuing education. Emphasis will be placed on needs assessments, planning, and designing inservice or staff development programs to meet institutional needs and individual professional needs.

**495 (3 to 9) (3, 3, 3) Workshop in Adult Education.** The foci for these workshops are to provide quality educational experiences for students and practitioners in the field of adult and continuing education in three major areas: (a) current issues, (b) improvement of instruction and programs in adult education, and (c) evaluation in adult education.

**500-3 Educational Research Methods.**

**501-3 Educational Administration: Tasks and Processes.**

**503-3 Educational Administration: Introduction to Theory.**

**505-2 Organization and Administration of the Middle and Junior High School.**

**507-3 Secondary School Principalship.**

**508-2 Student Development Theories.**

**509-3 School-Community Relations and Development.**

**510-3 Higher Education in the United States.**

**511-3 Organization and Administration of Curriculum.**

**512-3 Higher Education in Selected Nations.**

**513-3 Organization and Administration of Higher Education.**

**514-3 Foundations of Adult Education.**

**515-3 College Student Development: Operations and Policies.**

**516-3 College Students and College Cultures.**

**517-3 The Legal Framework of Education.**

**518-3 College Teacher and College Teaching.**

**519-3 Illinois School Law.**

**520-1 to 12 Current Issues in Educational Administration.**

**521-3 School Facilities.**

**523-3 Supervision of Instruction.**

**524-3 Curriculum Design and Policy.**



- 525-3 School Finance Theory.
- 526-3 The Community College.
- 527-3 School Business Administration.
- 528-3 Finance in Higher Education.
- 529-3 Supervision of Personnel: Problems.
- 530-3 Historical Research in Education.
- 531-3 School Boards and Policies.
- 533-3 Elementary School Principalship.
- 535-1 to 14 (a-n-1 to 3 each, s-2 to 6). Higher Education Seminar I.
- 536-3 Organization and Administration of Adult and Continuing Education.
- 537-3 The Adult Learner.
- 539-3 Evaluation and Accreditation in Schools.
- 540-3 Classics in Education.
- 541-3 Personnel Evaluation.
- 543-3 Professional Negotiations.
- 545-1 to 16 (a-j-1 to 3 each, s-1 to 8). Higher Education Seminar II.
- 549-3 Naturalistic Research Methodology.
- 550-1 to 4 Higher Education Seminar III.
- 551-3 Politics of Education.
- 552-3 Seminar in Comparative/International Education.
- 553-3 Systems and Accountability.
- 554-3 Seminar in Philosophy of Education.
- 555-3 Advanced Educational Administration Theory.
- 556-3 Seminar in History of European Education.
- 558-3 Advanced Seminar in Comparative/International Education.
- 559-3 Interdisciplinary Seminar in Educational Administration: I.
- 560-3 Education and Culture.
- 561-3 Interdisciplinary Seminar in Educational Administration: II.
- 565-3 Continuing Education and Extension Services.
- 575-3 Seminar in Adult and Continuing Education.
- 588-3 to 6 General Graduate Seminar.
- 589-1 to 4 Higher Education Research Seminar.
- 590-1 to 6 Readings.
- 591-1 to 6 Individual Study.
- 592-1 to 6 Special Problems (Individual).
- 593-1 to 3 per topic Individual Research.
- 595-1 to 8 Internships.
- 596-1 to 6 Independent Investigations.
- 599-1 to 6 Thesis.
- 600-1 to 36 (1 to 16 per semester) Dissertation.
- 601-1 to 12 per semester Continuing Research.

## Educational Media

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Educational Psychology (Department, Major [Graduate only], Courses)

The Department of Educational Psychology does not offer an undergraduate major but offers courses for undergraduate credit which serve as electives for students in other programs.

### Courses

- 100-2 Decision Making for Career Development.** Examination of factors relating to career decision making. Emphasis on the continuous use of learned processes and information in vocational development. Supplementary group guidance and counseling sessions required. Charges may be assessed to cover the cost of administering and scoring occupational interest surveys to be given during the course. These charges should be less than \$10.
- 307-3 Educational Psychology.** The basic factors involved in the teaching-learning process including student characteristics, motivation, learning, and teacher-student relationships. The course activities are intended to prepare the student with a basic foundation in educational psychology for the purpose of teaching.

**380-1 to 4 Practicum in Instructional Roles.** One semester hour of credit for every three modules selected. Application of educational psychology in a practical teacher-learner situation. Class members conduct actual instructional activities with individuals or groups of students. Field activities are required and the student may be required to purchase additional materials not to exceed \$20. Prerequisite: consent of instructor.

**402-3 Basic Statistics.** A master's level terminal statistics course. Emphasis on descriptive statistics and graphical representation of data. Includes a brief introduction to hypothesis testing procedure.

**412-3 Human Behavior and Mental Health.** A study of the principles of human needs, mechanisms of adjustment, and factors and conditions in life that tend to affect mental health. Prerequisite: junior or senior standing.

**418-3 Psychology of the Classroom.** Intended to develop interpersonal skills such as values clarification, empathy, and listening. Strategies for the resolution of conflicts and reasons for students demonstrating disruptive behavior will be discussed. Role-playing, group processes, concepts and activities in behavior modification, and activities related to concepts of discipline will be examined. Content should be suited to parents, teachers, and other professionals.

**422-3 Introduction to Individual and Group Assessment.** The student will be introduced to the basic testing process and the problems related to individual group assessment and will be expected to choose a project for study and investigation. The project must be related in some way to the role and function of the counselor in different settings. The various types of assessment instruments and the manner in which the data derived therefrom can be employed in consultation.

**442-3 Introduction to Counseling.** The following topics will be covered: purposes of counseling; counselor roles in various settings; approaches to counseling; counseling activities; and application of the above.

**481-1 to 12 Seminar.** Conducted by staff members and distinguished guest lecturers on pertinent topics. Prerequisite: consent of instructor and department.

**490-3 Introduction to Marriage and Family Counseling.** Problems and techniques of premarital, marital, divorce, family, and family crisis counseling. Counseling individuals singly, in family units, and in groups.

**491-1 to 6 Special Research Problem-Individual Study.** For majors. Formulating, investigating, and reporting on a problem in the area of guidance. Prerequisite: advanced standing and consent of department.

**493-3 Counseling Skill Development.** Through simulated counseling situations and extensive examination of counseling case studies, counseling skills are examined and practiced.

**494A-3 School Counseling Program.** A combined seminar, laboratory, and field experience representing the central focus of the program in school counseling. Enables the student to practice the role of the counselor under close supervision. Prerequisite: 537 and 3 additional hours from substantive course work in the counseling program.

**494B-3 Counseling Practicum.** Practice of counseling skills with different populations in varied settings. The professional setting depends on the student's interest area. Individual and group supervision are provided. Use of tape recorder is required. Prerequisite: 538 and 3 additional hours from substantive course work in the counseling program.

**494C-3 Career Counseling Practicum.** Supervised experience in handling career development experiences at elementary, secondary, or college levels. Application of theoretical models to program development is stressed, including presentation of relevant lessons, handling of group guidance activities, and conducting individual career development counseling sessions. Intern experience in public school or college settings equal to one day per week is required. Prerequisite: 542 and 3 additional hours from substantive course work in the guidance and counseling program.

**494D-3 to 6 (3, 3) Practicum in School Psychology.** Observation and participation in case conferences related to the development of psycho-educational assessment and planning, including teacher and parent consultation, field observations, and psychometric applications. Prerequisite: consent of instructor.

**506-4 Inferential Statistics.**

**507-4 Multiple Regression.**

**508-4 Experimental Design in Educational Research.**

**511-3 Instructional Psychology.**

**512-3 Affective and Cognitive Behaviors at the School Level.**

**513-3 Psychological Trends in Education.**

**515-3 The Psychological Aspects of Instructional Design.**

**521-3 Analysis of Classroom Behavior-Consultative Practices for School Personnel.**

**525-3 Cross Cultural Factors Affecting Counseling.**

**530-3 Standardized Testing: Use and Interpretation.**

**531-3 Principles of Measurement.**

**532-3 Theories of Intelligence.**

**533-4 Individual Measurement and Practice.**

**537-3 Counseling Children: Theory, Techniques, and Practice.**

**538-3 Adolescent and Adult Counseling: Theory, Techniques, and Practice.**

**540-3 Issues and Trends in Counseling.**

**542-3 Career Development Procedures and Practices.**



543-3 Group Theory and Practice.  
546-4 Personality Assessment.  
547-3 Implementation of Counseling Services.  
551-3 The Supervision of Practicum.  
555-3 to 6 (3, 3) Seminar in School Psychology.  
562-6 (3, 3) Human Development in Education.  
567-2 to 9 (2 to 6 per semester) Topical Seminar in Educational Psychology.  
568-1 to 12 (1 to 6 per semester) Topical Seminar in Counseling.  
570-3 Humanistic and Behavioral Theories in Education.  
580 Doctoral Seminar in Educational Measurement and Statistics.  
591-3 to 6 Internship in Counseling.  
592-1 to 8 (1 to 6 per semester) Independent Study and Investigation.  
593-1 to 4 Individual Research.  
594-1 to 6 Advanced Practicum.  
595-4 to 8 (4, 4) Internship in the Psychology of Teaching.  
596-15 (5 per semester) Internship in School Psychology.  
597-12 (6, 6) Doctoral Internship in Counseling.  
599-1 to 6 Thesis.  
600-1 to 32 (1 to 16 per semester) Dissertation.  
601-1 to 12 per semester Continuing Research.

## Electrical Engineering

(SEE ENGINEERING)

## Electronic Data Processing

(SEE COMPUTER INFORMATION PROCESSING)

## Electronics Management

(SEE ADVANCED TECHNICAL STUDIES)

## Electronics Technology (Program, Major, Courses)

The goal of the electronics technology program is to educate electronics technicians capable of taking their places in industry in both indirect and direct support to the electronics engineer. Experiences in meter measurements and troubleshooting are provided with manuals and specifications to allow the indirect supporting technician to work for a senior technician. More than an hour each day is spent descriptively and mathematically presenting the general theory principles of electronics. This theory is then applied in a two-hour laboratory each day to design, breadboard, and evaluate circuitry to not only reinforce the theory knowledge but to prepare the direct supporting technician for work later directly for an engineer. During the early stages of the program, most instruction is directed toward basic principles of electricity and electronics. This instruction is followed by principles related to study of communication systems, digital circuits, instrumentation, and control system.

The persons who make the best electronics technicians are those who are interested in physics and mathematics, who have a desire to learn how complex equipment functions and are careful of small details, and who enjoy seeking out and solving problems.

The purchase of a set of specified hand tools, costing approximately \$150, is mandatory for students enrolled in the program. A list of the specific hand tools and supplies required will be sent upon request.

An advisory committee drawn from among professionals active in the industry

helps to assure that students get a course of study that will prepare them for existing and developing conditions in the field.

Opportunities exist throughout industry for technicians, and students are limited only by their own talent and motivation. Job pay is directly commensurate with the technician's ability, resourcefulness, and initiative.

Students who have an excellent background in AC-DC theory are especially suited for an accelerated program. Students who have extensive studies in electronics in high school vocational courses and at area vocational centers are encouraged to enter an accelerated program which shortens the time required to earn the associate degree at the School of Technical Careers. The electronics technology faculty has developed a formalized program of proficiency testing which allows these students to:

- 1. Gain credit in first semester courses through testing.
- 2. Take second semester major courses during the eight-week summer session.
- 3. Begin third semester, or sophomore, courses in the fall semester of what would normally be their freshman year at college.

Electronics Technology 301, 302, 303, 311, 312, and 313 are post-associate courses. Students must have an Associate in Applied Science degree in electronics technology or equivalent to enroll in these courses. Additional electronics parts and supplies are required for these courses. The approximate cost of these parts and supplies is \$200 to \$250.

This associate degree program can be completed in two academic years at Southern Illinois University or in combination with community college or other acceptable extra-institutional educational experience.

**Associate in Applied Science Degree, School of Technical Careers**

*Requirements for Major in Electronics Technology*

GE-D 101, 153 .....	6
School of Technical Careers 105a,b, 107a,b, 102 or GE-D 118 .....	10
Electronics Technology 101, 102, 111, 112, 121, 122 or 223, 201, 202, 211, 212, 221 .....	53
Computer Science 202 or Computer Information Processing 109.....	3
<b>Total.....</b>	<b>72</b>

**Courses**

**100-3 Introduction to Electronics.** A non-mathematical introduction to the world of electronics. The uses of electricity and control devices for its use. Laws and theories which govern electronics. Devices and circuits which make up today's electronic system. Current flow through the conductors and devices which make up electronic circuits. No mathematics prerequisite. Materials fee, \$10 per credit hour, will be charged to students registered in individualized version of this course (Section 800).

**101-5 DC-AC Circuit Analysis.** The laws and theory principles of DC-AC passive circuits are presented in a comprehensive manner using descriptive, mathematical, and verbal analytical approach. Prerequisite: concurrent enrollment in School of Technical Careers 105a,b and electronics technology major or consent of program supervisor.

**102-5 Electronics Circuit Theory.** The operation of active devices with their passive components are descriptively, verbally, and mathematically presented in circuits such as simplifiers, oscillators, op amps, and other IC systems. Prerequisite: 101 and electronics technology major or consent of program supervisor.

**111-6 DC-AC Circuit Analysis Laboratory.** Application of the theory studies in 101 on passive circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: concurrent enrollment in 101.

**112-6 Electronics Circuits Laboratory.** Application of the theory studies in 102 on electronic circuits is made under experimental conditions. Laboratory ten hours. Prerequisite: 111, and concurrent enrollment in 102.

**121-3 Electronic Devices.** The focus is placed on electronic devices, their construction, operational characteristics, and application in a single functional block according to manufacturer specifications. Lecture three hours. Prerequisite: concurrent enrollment in 111.



- 122-3 Communications Fundamentals.** Communications systems, components, propagation, and coupling, and other transmission modes are covered as applied to communication. Prerequisite: 101.
- 201-1 to 5 Telemetry and Industrial Circuits Theory.** The theory principles are covered on circuitry employed in the measurement, transmission, resolution, and development of data required for operation in industrial and commercial applications. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.
- 202-1 to 5 Digital Circuits Theory.** Concepts of the circuits used to make up such systems as numeric controls, computers, and communications networks. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.
- 211-6 Telemetry and Industrial Circuits Laboratory.** Application of the theory studied in 201. It develops skills in design, testing, and troubleshooting transducers, telemetry equipment, and industrial circuits. Laboratory ten hours. Prerequisite: concurrent enrollment in 201 or consent of instructor.
- 212-1 to 6 Digital Circuits Laboratory.** The laboratory provides organized investigation of individual circuits and subsystems that are employed in a variety of major systems in industry and commerce. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: 102 and consent of instructor.
- 221-3 Electronic Systems Analysis.** Extends the basic analysis skills developed in the prerequisite course to the analysis of typical modern electronic systems and subsystems. Lecture three hours. Prerequisite: 102 or consent of instructor.
- 223-3 Federal Communications Commission Test Preparation.** Programmed instruction designed to prepare a student for the test for the general FCC radio-telephone license. Individualized instruction three hours. Prerequisite: 102 and electronics technology major or consent of program supervisor.
- 224-3 Computer Systems Applications.** Analysis and working knowledge of numbering systems, Boolean algebra, logic gates, pulse shaping circuits, and various timing circuits used in computers, microprocessors, and other digital systems. Materials fee, \$10 per credit hour, will be charged to students registered in individualized version of this course (Section 800). Prerequisite: 101 and 111 or consent of program coordinator.
- 301-1 to 5 Introduction to Electronic Biomedical Instrumentation.** Designed to develop an understanding of the fundamentals of electronic circuits employed in biomedical instrumentation of the following purposes: cardiovascular measurements, patient care and monitoring, measurements in the respiratory system, measurement of physical variables, sensory measurements for the study of behavior, biotelemetry, instrumentation for the clinical laboratory, X-ray and radioisotope instrumentation, and particularly electrical safety for medical equipment. Lecture five hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor.
- 302-3 to 4 Optical Electronics.** The student will be required to identify the basic principles of light physics as they relate to laser and fiber optic theory. Integration of electronic control, measuring, and sensing devices will be accomplished within an industrial and communication framework. A systems approach will be utilized involving laser, fiber optic, and electronic discrete and integrated components. It is an applied course intended as a post-associate offering primarily for students in electronics technology providing exposure to the technical aspects of an important emerging area of electronics. Prerequisite: 102.
- 303-5 Microcomputer Construction and Troubleshooting.** Upon successful completion of this course, the student will be able to construct a microprocessor based system and make it operational, generate software techniques which would be used in software/hardware troubleshooting, use equipment and techniques which would be used in efficient microprocessor system troubleshooting, and use the equipment or techniques learned to troubleshoot a microprocessor based system.
- 304-4 Communication Systems.** The non-calculus based theory of circuits used in modern AF, Video, and RF communication systems; applicable to PA systems through satellite communications. Modulation, demodulation, multiplexing, conversions of both digital and analog signals will be investigated. Receivers, transmitters, and various interface devices (terminals) using AM, FM, SSB, PCM, and complex modulation techniques of AF and video will be studied. Prerequisite: 201 or consent of instructor; 223 recommended.
- 311-1 to 6 Electronic Biomedical Instrumentation Laboratory.** The laboratory is designed to provide hands-on experience with the equipment currently available for use in biomedical instrumentation. The equipment is selected from the major supplies and will be utilized to teach interfacing and applications. The equipment will encompass sensors, transducers, amplifiers, oscillators, display and recording devices. Complete systems approach will be taught in conjunction with the medical school laboratories on existing equipment. Laboratory ten hours. Hours and credit to be individually arranged. Prerequisite: consent of instructor.
- 312-2 Optical Electronics Laboratory.** The student will perform selected experiments in electronics, lasers, fiber optics, and light physics. Emphasis will be placed on the integration of laser and fiber optic principles with electronics. Laboratory three hours. Prerequisite: 102 and concurrent enrollment in 302.

**313-6 Microcomputer Construction and Troubleshooting Laboratory.** This laboratory is designed to reinforce the concepts of microcomputer operation, troubleshooting, programming, and interfacing through actual practice. Ten hours laboratory. Prerequisite: concurrent enrollment in 303.

**319-1 to 15 Electronics Occupations Internship.** Students will be assigned to a University approved program to engage in activities related to the electronics technology program and the student's career objectives. The student will perform duties as assigned by the work supervisor and internship coordinator. Reports and assignments are required. Prerequisite: consent of instructor. Mandatory Pass/Fail.

## Elementary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Engineering (Departments, Majors, Courses)

### CIVIL ENGINEERING AND MECHANICS (Department)

Two degree programs are offered by the Department of Civil Engineering and Mechanics. One program leads to a Bachelor of Science degree in civil engineering (see civil engineering) and the other leads to a Bachelor of Science degree in engineering with a specialization in engineering mechanics (see engineering mechanics).

The civil engineering curriculum is designed to give the student a foundation in the basic principles used in the practice of civil engineering and how these principles are applied both in theory and design. This program prepares the student to work in a wide range of civil engineering career options. Civil engineering is often called a people-serving profession.

The engineering mechanics curriculum is a program of study that stresses breadth and fundamentals in the physical and engineering sciences. Mechanics is basic to most fields in engineering. The program prepares students for a wide range of engineering jobs including research and is excellent preparation for graduate study in a number of engineering areas.

### CIVIL ENGINEERING (Major, Courses)

The civil engineering program leading to the Bachelor of Science degree is designed to provide the student with the broad educational background essential to modern civil engineering practice. Technical electives in the senior year permit greater breadth or additional depth in such areas as structural and geotechnical engineering, hydraulic engineering, environmental engineering, and applied mechanics. Students interested in majoring in civil engineering are strongly urged to complete a double major within the Department of Civil Engineering and Mechanics. This can be accomplished by taking 18 additional hours of approved coursework and thus satisfying the graduation requirements for a Bachelor of Science degree with a major in engineering with specialization in engineering mechanics. The latter is fully accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, the recognized agency for accrediting engineering curricula in the United States. The civil engineering program has just been introduced and will be due for accreditation review during a future ABET inspection.

Civil engineers are involved in the research, development, planning, design, construction, and operation of facilities essential to modern life. Such projects include bridges, highways, harbors, airports, multi-story structures, and environmental and hydraulic systems and their components.



**Bachelor of Science Degree, College of Engineering and Technology**

<i>General Education Requirements</i> .....	30 <sup>1</sup>
GE-A: Substitute basic sciences	
GE-B: Choose from approved list <sup>2</sup> .....	9
GE-C: Choose from approved list <sup>2</sup> .....	9
GE-D: GE-D 101, 118, 152 or 153 and substitute mathematics .....	8
GE-E .....	4
<i>Requirements for Major in Civil Engineering</i> .....	102
Basic Sciences .....	16 <sup>3</sup>
Physics 205a,b. ....	6
Chemistry 222a,c .....	7
GE-A 115.....	3
Mathematics 150, 250, 251, 305, and approved elective-3. ....	17
Civil Engineering .....	69
General: Engineering 100, 222, 361; Engineering Mechanics 351; Civil Engineering 480.....	11
Engineering Sciences .....	33
Engineering 260a, b, 300, 311, 312, 313, 335 .....	20
Civil Engineering 314, 321, 340 .....	9
Mining Engineering 320 <sup>4</sup> .....	2
Engineering science elective to be chosen from an approved list .....	2
Engineering Design .....	18
Civil Engineering 413, 415, 442, 444, 483.....	15
Design elective to be chosen from an approved list .....	3
Technical electives to be chosen from an approved list .....	7
Mining Engineering 320 <sup>4</sup> .....	1
Technical electives to be chosen from an approved list ....	6
<i>Total</i> .....	132

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education making a total of 45 in that area.  
<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-B and GE-C are more restrictive than those of the University as a whole.  
<sup>3</sup>Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 16 semester hours of basic sciences approved by the department chairperson or a designate, meet this requirement.  
<sup>4</sup>This course is used for two semester hours of engineering science and one semester hour of technical elective for a total of three semester hours.

**Courses**

Safety glasses, a hand-held scientific calculator, and textbooks are required of all civil engineering students.

- 314-3 Introduction to Environmental Pollution.** Basic engineering aspects and interrelationships of air, water, and land pollution. Problems, sources, and effects of pollution. Pollution abatement. State and federal air and water quality standards and engineering systems for pollution abatement. Prerequisite: Chemistry 222c, junior standing.
- 321-3 Soil Mechanics.** Physical and mechanical properties of soils, shear strength, consolidation, soil stabilization and soil improvement, settlement, lateral earth pressures, and laboratory. Prerequisite: Engineering 222 and 311.
- 340-3 Structures.** Loads. Types of structures. Structural materials. Safety. Analysis of statically determinate beams, trusses, and frames under static loads. Influence lines. Moving loads. Cables. Arches. Space trusses. Deflection of beams, trusses, and frames. Moment distribution for beams. Prerequisite: Engineering 311 or consent of instructor.
- 409-3 Hydrology and Hydraulic Engineering Design.** Study of the hydrologic cycle. Stream-flow analysis. Unit hydrograph. Matrix methods; synthetic methods. Frequency analysis; multivariate distributions. Hydrologic and hydraulic routings. Groundwater hydrology. Application of hydrology to the design of various hydraulic structures: small dams, spillways, drainage systems. Prerequisite: Engineering 222, 313 or equivalent or consent of instructor.
- 410-3 Hazardous-Waste Engineering and Management.** Analysis of hazardous waste generation, storage, shipping, and disposal. Design of disposal systems. Relating hazardous-waste dis-

posal techniques and management with governmental regulations. Prerequisite: 314, Engineering 300.

**413-3 Fluid Systems Design.** Two to three week projects involving the identification, modeling, analysis, and design of fluid-engineering systems. Prerequisite: Engineering 222, 313.

**415-3 Wastewater Treatment.** A study of the design equations used in physical, chemical, and biological treatment processes and comparison to design by state standards. Basics of bacteria and their metabolic processes in the degradation of organic wastes. Treatment and disposal of sludges produced in wastewater treatment. Advanced waste treatment processes; reuse of wastewater. Concurrent enrollment in 417 is recommended. Prerequisite: 314.

**417-1 Water Quality Laboratory.** Measurements of water quality parameters performed. Use of modern instrumental techniques demonstrated. Safety glasses are required. Prerequisite: 314.

**419-3 Water Supply and Treatment.** Water quality requirements, water sources, water treatment to include coagulation and flocculation, mixing and sedimentation basins, filtration, disinfection processes, and water softening. Consideration of toxic elements in water (sources, problems, and treatments). Prerequisite: 314.

**421-3 Foundation Design.** Application of soil mechanics to the design of the foundations of structures; bearing capacity and settlement analysis; stability of earth slopes; design of retaining walls, pile foundations, coffer dams. Prerequisite: 321.

**440-3 Statically Indeterminate Structures.** Analysis of trusses, beams, and frames. Approximate methods. Method of consistent deformations. Three-moment theorem. Slope deflection. Moment distribution. Column analogy. Plastic analysis. Matrix methods. Prerequisite: 340 or consent of instructor.

**442-3 Structural Steel Design.** An introduction to structural steel design with emphasis on buildings. Composite design. Plate girders. Rigid frames. Design project and report required. Prerequisite: 340 or consent of instructor.

**444-3 Reinforced Concrete Design.** Behavior and strength design of reinforced concrete beams, slabs, compression members, and footings. Design project and report required. Prerequisite: 340 or consent of instructor.

**445-3 Reinforced Masonry Design.** Materials. Loads. Walls. Columns and pilasters. Beams. Lateral-load resisting elements. Connections and joints. High-rise structures. Environmental features. Quality control. Design project and report required. Prerequisite: 444 or consent of instructor.

**446-3 Prestressed Concrete Design.** Fundamental concepts of analysis and design. Materials. Flexure, shear, and torsions. Deflections. Prestress losses. Composite beams. Indeterminate structures. Slabs. Bridges. Prerequisite: 444.

**451-3 Introduction to Finite Elements in Engineering Applications.** (Same as Engineering Mechanics 451.) Introduction to finite element techniques and computer methods in finite element applications. Theory and structure of algorithms for one-dimensional and multi-dimensional problems. Introduction to boundary element methods. Applications in solid mechanics, structural analysis, groundwater flow, and heat transfer. Prerequisite: Engineering Mechanics 351 or equivalent.

**462-3 Matrix Methods of Structural Analysis.** Flexibility method and stiffness method applied to framed structures. Introduction to finite elements. Prerequisite: 340 and Engineering 222 or consent of instructor.

**480-1 Civil Engineering Seminar.** Civil engineering as a profession. Basic concepts of professionalism. Engineers' inherent responsibilities to society, client or employer, and other members of the profession. The role of ethics in engineering. Prerequisite: senior standing.

**483-3 Senior Design Project in Civil Engineering.** A comprehensive design course emphasizing preliminary and overall design of civil engineering projects using a team approach. Students will define and design the various components and subsystems of the project, define subsystem interface requirements, integrate the subsystems into the final design and document the whole design in the form of a final report and an oral presentation. Laboratory. Not for graduate credit. Prerequisite: 413, 415, 442, 444, and senior standing in civil engineering.

**492-1 to 4 Special Problems in Engineering.** Selected engineering topics or problems in (a) structural engineering, (b) hydraulic engineering, (c) environmental engineering, and (d) applied mechanics. Four hours maximum course credit. Prerequisite: consent of instructor.

**511-3 Solid Waste Collection and Disposal.**

**512-3 Theory of Elasticity.**

**525-3 Transient Hydraulic Transport.**

**516-3 Water Resources Management.**

**517-3 Industrial Waste Treatment.**

**518-3 Advanced Biological Treatment Processes.**

**544-3 Advanced Design of Reinforced Concrete.**

**545-3 Inelastic Metal Structures.**

**561-3 Structural Dynamics.**

**580-1 to 4 Seminar.**

**592-1 to 4 Special Investigations in Engineering.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**



ELECTRICAL ENGINEERING (Department, Major, Courses)

The Department of Electrical Engineering offers courses in the major areas of electrical and computer engineering. Students who choose the electrical engineering major prepare themselves for professional and technical employment or graduate studies leading to advanced degrees. Employment opportunities exist within a wide range of organizations, such as governmental laboratories; consumer goods manufacturers; and telecommunications, electric power, computer, and microelectronic companies. Flexibility in this major allows students to choose among courses in applications and theory of circuits, systems, communications, digital systems, controls, electronics, instrumentation, electromagnetics, and power systems.

The curriculum in electrical engineering is fully accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

Bachelor of Science Degree, College of Engineering and Technology

General Education Requirements . . . . .	30 <sup>1</sup>
GE-A: Substitute basic science . . . . .	
GE-B: Choose from approved list <sup>2</sup> . . . . .	9
GE-C: Choose from approved list <sup>2</sup> . . . . .	9
GE-D: GE-D 101, 118, 153 and substitute mathematics . . . . .	8
GE-E . . . . .	4
Requirements for Major in Electrical Engineering . . . . .	102
Basic Sciences . . . . .	18 <sup>3</sup>
Physics 205a,b; 255a,b . . . . .	8
Chemistry 222a,c . . . . .	7
GE-A: Choose from approved list <sup>2</sup> . . . . .	3
Mathematics 150, 250, 251, 305 and approved elective-3 . . . . .	17
Engineering . . . . .	67
General: Engineering 100, 222, 361 . . . . .	7
Engineering Sciences . . . . .	33
Engineering 260a, 300, 302, Electrical Engineering 225, 235*, 345, 375, 385. Select two from Engineering 260b, 311, 312, 313. Electrical Engineering 455 (2 hours will count toward the requirement), and 465 (1 hour will count toward the requirement). . . . .	
Engineering Design. . . . .	18
Electrical Engineering 443 (4 hours will count toward the requirement). Electrical Engineering 455 (1 hour will count toward the requirement), and 465 (2 hours will count toward the requirement) plus 11 hours of engineering design from the following courses. A maximum of 1 hour for each of these courses will count toward the requirement: Electrical Engineering 421, 468, 478. A maximum of 2 hours for each of these courses will count toward the requirement: Electrical Engineering 428, 456, 459, 488. A maximum of 3 hours for each of these courses will count toward the requirement:	

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education making a total of 45 in that area.  
<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-A, GE-B and GE-C are more restrictive than those of the University as a whole.  
<sup>3</sup>Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 16 semester hours of basic sciences approved by the department chairperson or a designate, meet this requirement.  
<sup>4</sup>A grade of C or better must be earned in Electrical Engineering 235 before taking 345, 385, and 455.

Electrical Engineering 427, 446, 457, 487. A maximum of 4 hours of Electrical Engineering 426 will count toward the requirement.

Approved technical electives .....	9
Total .....	132

Courses

Safety glasses, a hand-held scientific calculator, and textbooks are required of all electrical engineering students.

**225-3 Introduction to Digital Systems.** Number systems, Boolean algebra, combinational circuits, minimization, sequential circuits, logic devices, and computer basics. Prerequisite: Engineering 222.

**235-3 Electric Circuits.** Foundation course in electric circuits. Basic laws and concepts of linear circuits analysis of AC and DC circuits by mesh and nodal methods. Thevenin's and Norton's theorems, superposition principle, and phasor notation. Transients. Prerequisite: Mathematics 250.

**345-4 Electronics.** Fundamental electronics and basic signal processing. Characteristics and typical applications of analog and digital electronic modules. Operational amplifiers. Fundamentals of transistors. Use of basic instruments. Lecture and laboratory. Laboratory fee of \$10 to help defray cost of consumable items. Prerequisite: 235.

**375-3 Electromagnetic Fields I.** Electric and magnetic fields using vector analysis. Evolution of Maxwell's equations through the laws of Coulomb, Gauss, Ampere, and Faraday. Concepts of energy and potential. Poisson and Laplace fields. Wave equation and plane waves. Prerequisite: 305.

**385-3 Electromechanical Energy Conversion.** Principles of electromagnetic energy conversion and related circuitry. Magnetic circuits. Transformers. DC machines. Single phase and polyphase machines. Polyphase circuits. Prerequisite: 235.

**421-2 Digital Computers in Applied Physical Research.** Computational techniques for matrix inversion, solution of linear equations, and characteristic roots and vectors. Least squares analysis, curve-fitting, and regression. Numerical quadrature. Solution of non-linear equations. Solution of regular differential equations and boundary-value problems. Generation of approximate solutions. Monte Carlo techniques. Engineering and other physical examples are used as the primary teaching vehicle. Prerequisite: Engineering 222 and Mathematics 305.

**426-4 Microcomputer Systems.** Application and makeup of microcomputer systems. Microprocessor programming and applications with various interface devices including input/output ports, analog-to-digital and digital-to-analog converters. Lecture, laboratory, and design project. Three hours of lecture and two hours of laboratory per week. Prerequisite: 225, Engineering 222 and 345 or consent of instructor.

**427-3 Digital-Systems Design I.** Advanced concepts in combinational and sequential circuit design including system design procedures and register transfer languages. Prerequisite: 225, Engineering 222 and 345 or consent of instructor.

**428-3 Digital Hardware Design I.** Fundamentals of digital hardware design. Systems with a microcomputer as the controller. Microcomputer buses and interfaces. One major design and construction project laboratory. Prerequisite: 427 or 465 or consent of instructor.

**443-4 Electrical Engineering Design.** Projects of an electrical engineering systems design nature. Students select a problem, define and design the various subsystems, define subsystem interface requirements, integrate the subsystems into the final design, and document the design effort. Laboratory. Not for graduate credit. Prerequisite: senior standing.

**446-4 Electronic Circuit Design.** Design techniques for a wide range of electronic circuits. Device and circuit modeling. Computer aided circuit design. Consideration of audio, video, and tuned amplifiers; feedback; oscillators; digital circuits. Design project. Lecture and laboratory. Laboratory fee of \$10 to help defray cost of consumable items. Prerequisite: 455 or concurrent enrollment; Engineering 345.

**447-4 Applications of Electronic Devices.** Physical mechanisms governing the operation of a wide variety of semiconductor devices. Applications of specific devices are used to illustrate performance characteristics and the relation between device design parameters and terminal properties. Three hours lecture and two hours of laboratory per week. Prerequisite: Engineering 222, 312, and 345.

**448-4 Laser Electronics.** A study of the excitation and lasing process in various liquid, solid, and gas lasers. Techniques and principles utilized in the design of a laser system are also covered. Three hours lecture and two hours of laboratory per week. Prerequisite: Engineering 345.

**455-3 Linear Systems.** Fundamental techniques in analysis of linear systems. Transient analysis of linear electrical networks and analogous systems by classical, Laplace transform, and computer techniques. Feedback, frequency response, and state variables. Prerequisite: Engineering 335 and Mathematics 305.

**456-3 Control Theory.** Fundamentals and techniques for analysis and design of systems with



feedback. Signal flow graphs. S-plane analysis. Frequency-domain analysis. Root locus. Stability conditions. Compensation techniques. Prerequisite: 455.

**457-3 Systems Theory.** In-depth study of system concepts such as interaction, anticipation, feedback, feedforward, stability, and memory. Methods which maintain flexibility and generality in dealing with all types of engineering systems. Prerequisite: Mathematics 305 or consent of instructor.

**458-3 Communications Theory.** Basic information theory. Fourier series and transform. Sampling theory. Amplitude modulation, frequency modulation, and pulse modulation. Signal-to-noise ratio. Statistical methods. Prerequisite: 455.

**459-3 Digital Control.** Analysis and design methods for discrete-data and digital control systems using tools like Z-transforms, state variable equations, stability criteria time-domain response, and frequency-domain response. Prerequisite: 225 and 455.

**461-4 Bio-electricity and Biomedical Instrumentation.** Interdisciplinary course primarily for life-science students. Electromagnetics relative to living systems. Circuit analysis. Functional electronics. Electric safety. Specified clinical and research instrumentation. Lecture and laboratory.

**462-3 Biomedical Instrumentation and Measurements.** (Same as Physiology 462.) Diagnostic and therapeutic modalities related to engineering. Includes study of electrocardiography, ultrasonography, and chemical instrumentation; radiation therapy; electrosurgery, and prosthetic design. Prerequisite: senior standing in any branch of engineering and at least one course in human physiology or consent of instructor.

**465-3 Instrumentation.** Theory and practice related to measurement systems for research and industry. Instrument characteristics. Techniques in analog and digital instrumentation. Transducers. Signal conditioners. Output and display systems. Statistics of measurement. Design project. Lecture and laboratory. Laboratory fee of \$10 to help defray cost of consumable items. Prerequisite: Engineering 345.

**468-3 Digital Signal Processing.** Discrete Z-transforms. Discrete Fourier Transform. Fast Fourier Transform algorithms. Digital filter design. Applications in speech and image processing. Prerequisite: 455.

**477-4 Electromagnetic Fields II and Microwaves.** Application of Maxwell's equations and electromagnetic laws to boundary-value problems: microwave fundamentals; guiding and resonating structures, and surface waves. Poynting's theorem and microwave measurements. Lecture and laboratory. Prerequisite: 375.

**478-3 Digital Communication.** Principles, analysis, design, and applications of digital communication systems; transmission techniques of digital information; state-of-the-art implementation of modems, terrestrial line-of-sight, digital, microwave networks and digital satellite communication systems. Prerequisite: 455 or consent of instructor.

**486-3 Electric Energy Sources.** Principles and utilization of nuclear, solar, and fossil-fuel generators. Direct energy converters including thermionic, thermoelectric, and photovoltaic. Prerequisite: Engineering 385 or consent of instructor.

**487-4 Power Systems Analysis I.** Introduction to analysis of electric power systems. Modeling of power system components. Power system configuration. Per-unit quantities. Symmetrical components. Short circuit analysis. Prerequisite: Engineering 385.

**488-3 Power Systems Engineering.** Network analysis applied to power systems; load-flow concept; economic operation of power systems; stability. Prerequisite: 487.

**492-1 to 3 Special Studies in Electrical Engineering.** Individual projects and problems selected by student or instructor. Open to seniors only. Prerequisite: consent of instructor.

**493-1 to 3 Special Topics in Electrical Engineering.** Lectures on topics of special interest to students in various areas of electrical engineering. Designed to offer and test new and experimental courses in electrical engineering. Prerequisite: consent of instructor.

**527-3 Switching Circuit Theory.**

**536-3 Network Synthesis.**

**547-3 Solid-State Theory of Electronic Materials.**

**548-3 Advanced Electronic Devices.**

**551-3 Probability and Random Processes.**

**552-3 Statistical Theory of Communication.**

**553-3 Data Communication Networks.**

**556-3 Modern Control Theory.**

**557-6 (3, 3) Complex Systems.**

**562-3 Advanced Biomedical Instrumentation.**

**577-3 Antenna Theory and Design.**

**580-1 to 4 Seminar.**

**586-3 Power Systems Analysis II.**

**592-1 to 3 Special Investigations in Electrical Engineering.**

**593-1 to 3 Advanced Topics in Electrical Engineering.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## ENGINEERING (Major, Courses)

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of people.

The four-year undergraduate program leading to the Bachelor of Science degree in engineering is a modern, flexible curriculum consisting of a common core and an elective option. The common core consists of courses in basic sciences, mathematics, engineering science, and engineering design. Sometime before the senior year, the student selects the option which contains required and elective courses in an area of interest. The options are:

Engineering Mechanics (EM)

Thermal and Environmental Engineering (TEE)

The options (EM, TEE) are fully accredited by the Engineering Accreditation Committee of the Accreditation Board for Engineering and Technology, Inc. (ABET), the recognized agency for accrediting engineering curricula in the United States. Graduating seniors with a specialization in EM or TEE are eligible to take the Engineer-In-Training (EIT) examination as a first step toward registration as a Professional Engineer (PE).

Judicious selection of elective courses allows the student to prepare for a variety of areas (see individual curricula) identified with the traditional engineering disciplines (electrical, mechanical, civil, mining, etc.) and other areas that transcend the traditional disciplines. The aim of this flexibility is to provide society with graduates who can cope with a variety of engineering activities such as design, development, testing, consulting, and applied research. These activities may be directed toward the solution of contemporary problems varying from design of devices to problems of an interdisciplinary or complex-systems nature.

Students enrolled in community colleges who plan to transfer to Southern Illinois University should take courses that provide backgrounds in mathematics, physical sciences, social sciences, and humanities. Introductory foreign language courses are not acceptable. They may transfer at any time, but there are advantages in having completed a baccalaureate-oriented associate-degree program. Community college students can complete specific Southern Illinois University course requirements which include 5 hours of English composition and speech, 8 hours of university physics, 7 hours of chemistry, 11 to 14 hours of mathematics (including calculus), 5 hours of statics and dynamics, and 16 hours of social sciences and humanities. Calculus and analytical mechanics are prerequisites for most junior-level engineering courses.

Students with bachelor of science degrees in engineering can specialize further at the graduate level.

## Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required for all engineering students.

**100-3 Introduction to Engineering.** Introduction to the exciting and challenging experience of engineering. Methods and procedures utilized by the engineer for problem solving are discussed. Each student will be involved in an authentic engineering design project. A graphics and computational tools laboratory will be part of the course.

**222-2 Computational Methods for Engineers and Technologists.** Introduces the student to the use of digital computers and programmable calculators in the solution of technical problems. A problem-oriented computer language is used to solve relevant problems that are specifically designed for the engineering and technology student. Problem analysis, flow charting, coding, diagnostics, execution, and solution verification are discussed. Prerequisite: Mathematics 111.

**260-5 (2, 3) Mechanics of Rigid Bodies.** (a) Principles of statics; force systems; equilibrium of



- particles and rigid bodies; trusses, frames and machines, centroids; friction; moments of inertia of areas. Prerequisite: 100 and Mathematics 150. **(b) Principles of dynamics;** mass moment of inertia; kinematics and kinetics of particles and rigid bodies; vibrations. Prerequisite: 260a or equivalent.
- 300-3 Engineering Thermodynamics I.** Study of the basic principles of thermodynamics. Engineering analysis of physical systems based on the first and second laws. Properties of pure substance (ideal gas behavior, non-ideal gas behavior, and equations of state.) Mixtures of ideal gases. Introduction to cycle analysis. Prerequisite: Chemistry 224 or equivalent and Physics 205a. Physics prerequisite waived with consent of instructor.
- 302-3 Engineering Heat Transfer.** An introductory study of the rate mechanisms of thermal energy transport both in steady state and in transient conditions, with and without phase change. Prerequisite: 260a.
- 311-3 Mechanics of Deformable Bodies.** Introduction to the mechanics of deformable bodies. Forces and deformations. Torsion. Stresses in beams. Deflections of beams. Statically indeterminate beams. Columns. Laboratory supply fee: \$3. Prerequisite: 260a.
- 312-3 Materials Science Fundamentals.** Sub-microscopic structure of solids, including electronic states, atomic and molecular arrangement, structural imperfections and atomic diffusion, and their relationship to macroscopic properties; physical properties of semiconductors, dielectric and magnetic properties of materials; metallic, organic, and ceramic materials and their mechanical properties; composite materials. Laboratory supply fee, \$5. Prerequisite: Physics 205 and Mathematics 250.
- 313-3 Fluid Mechanics.** A broad introduction to the concepts and principles of fluid statics, kinematics, and dynamics. The fundamental laws for fluid motion in the form of Euler's, Bernoulli's, impulse-momentum and work-energy equations. Dimensional analysis and dynamic similitude. Resistance to flow; deformation drag, surface drag, form drag. Introduction to compressible fluid flow. Laboratory supply fee, \$3. Prerequisite: 260b.
- 335-3 Electric Circuits.** Foundation course in electric circuits. Basic laws and concepts of linear circuits. Analysis of AC and DC circuits by mesh and nodal methods, Thevenin's and Norton's theorems, superposition principle, and phasor notation. Transients. Prerequisite: Mathematic 250.
- 345-3 Electronics.** Functional electronics and basic signal processing. Characteristics and typical applications of analog and digital electronic modules. Operational amplifiers. Fundamentals of transistors. Use of basic instruments. Lecture and laboratory. Laboratory fee of \$10 to help defray cost of consumable items. Prerequisite: 335.
- 361-2 Engineering Economics in Design.** Procedures for evaluating the relative economic merits of engineering projects and designs. These procedures compare alternate engineering estimates, evaluate engineering effectiveness, and proceed toward decision making based on economic and engineering optimization. Course materials are present in professional engineering examinations. Prerequisite: Mathematics 111 or equivalent.
- 385-3 Electromechanical Energy Conversion.** Principles of electromechanical energy-conversion and related circuitry. Magnetic circuits. Transformers. DC machines. Single-phase and polyphase machines. Polyphase circuits. Prerequisite: 335.
- 455-3 Engineering Geology.** (See Geology 455.)
- 501-3 Advanced Engineering Analysis I.**
- 502-3 Advanced Engineering Analysis II.**
- 520-3 Systems Theory.**
- 530-3 Engineering Data Acquisition: Theory and Practice.**
- 540-3 Design of Engineering Experiments.**
- 545-3 Advanced Numerical Methods in Engineering.**
- 580-1 to 2 Seminar.**
- 590-1 to 6 (1 to 3 per semester) Special Investigations in Engineering Science.**
- 600-1 to 36 (1 to 16 per semester) Doctoral Dissertation.**
- 601-1 to 12 per semester Continuing Research.**

## ENGINEERING MECHANICS (Major [Engineering] Courses)

The engineering mechanics option is designed to help students prepare for a broad professional career in theoretical and applied mechanics, or to prepare for graduate studies. Inherent in the program is a broad foundation in the basic engineering sciences. Coursework is offered by the department in theoretical and experimental stress analysis, vibrations, design, mechanics of materials, fluid mechanics, soil mechanics and foundations, structural analysis and design, numerical methods, and supersonic flow. The student, with the help of an adviser, is encouraged to choose a sequence of technical electives to achieve a solid and coherent specialization. Graduates of this specialization are successfully employed in industries such as aerospace, automotive, equipment manufacture, research, consulting, nuclear, and many others.

**Bachelor of Science Degree, College of Engineering and Technology****ENGINEERING MAJOR – ENGINEERING MECHANICS SPECIALIZATION**

<i>General Education Requirements</i> .....	30 <sup>1</sup>
GE-A: Substitute basic sciences	
GE-B: Choose from approved list <sup>2</sup> .....	9
GE-C: Choose from approved list <sup>2</sup> .....	9
GE-D: GE-D 101, 118, 152 or 153 and substitute mathematics .....	8
GE-E .....	4
<i>Requirements for a Major in Engineering</i> .....	102
Basic Sciences .....	18 <sup>3</sup>
Physics 205a,b; 255a,b .....	8
Chemistry 222a,c .....	7
GE-A 115 .....	3
Mathematics 150, 250, 251, 305 and approved elective-3 .....	17
Engineering .....	27
General: Engineering 100, 222, 361 .....	7
Engineering Sciences .....	20
Engineering 260a,b, 300, 311, 312, 313, 335 .....	
Specialization in Engineering Mechanics .....	40
General: Engineering Mechanics 351 .....	3
Engineering Sciences: Engineering Mechanics 414, 441 <sup>4</sup> , 446, 447, Civil Engineering 340 .....	15
Engineering Design: Engineering Mechanics 483 plus 12 hours of design to be chosen from approved list .....	15
Technical electives in approved areas .....	7
<i>Total</i> .....	132

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education making a total of 45 in that area.<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-B and GE-C are more restrictive than those of the University as a whole.<sup>3</sup>Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.<sup>4</sup>This course is used for one semester hour of design and two semester hours of engineering science for a total of three semester hours.**Courses**

Safety glasses, a hand-held scientific calculator, and textbooks are required of all engineering mechanics students.

**351-3 Numerical Methods in Mechanics.** An introduction to the available numerical methods and techniques which are employed to solve engineering problems with special emphasis devoted to areas of mechanics involving stress analysis, vibrations, fluid flows, mechanisms, and structures. Prerequisite: Engineering 222, 311, 313 or consent of instructor.

**414-3 Intermediate Fluid Mechanics.** A development of the governing equations of motion including the continuity, Navier-Stokes, and energy equations. Application of these equations to potential, viscous, and compressible flows. Isentropic flow of a perfect gas. Normal and oblique shock waves, Prandtl-Meyer flow. Prerequisite: Engineering 313 or equivalent.

**441-3 Vibration in the Design of Machines and Structures.** Theory: Review of second order ordinary linear differential equations. Matrices and determinants. Phasor and trigonometric solutions, Duhamel integrals, Fourier Series. Applications: motor and equipment mounts, deflection of rotating shafts, resonance, dynamic balancing, vibration absorbers, vibrometer and accelerometer design, analysis of accelerometer and vibrometer data, seismic loads on buildings, vehicle suspensions, vibration of geared systems, vibration linkages. Prerequisite: Engineering 222, 260b, 311, and Mathematics 305.

**446-3 Materials Engineering.** A macroscopic overview of the behavior of engineering materials including metals and composite materials. Topics covered include the elastic behavior of materials; failure theories and plastic behavior; brittle fracture and fatigue, impact loadings, thermal stresses, and creep. Prerequisite: 222, 312.

**447-3 Intermediate Mechanics of Materials and Structures.** An introduction to the equations of elasticity. Applications of these equations to beam bending, torsion, and plane stress/plane



strain problems. Energy methods. Introduction to elastic-plastic material behavior. Prerequisite: Engineering 222, 311.

**448-3 Experimental Stress Analysis.** Development of theoretical equations of stress and strain and their transformations. Equations of equilibrium; compatibility equations; stress functions; applications of these equations in stress measurements; study of optical, mechanical, and electrical strain gauges; brittle coating; Moire' technique; and two-dimensional photoelasticity. Laboratory supply fee \$10. Prerequisite: Engineering 311.

**449-3 Intermediate Dynamics.** Kinematics and kinetics of plane and three-dimensional motion. Principles of work and energy applied to the motion of rigid bodies. Principle of impulse-momentum applied to variable mass and rigid body systems. Space mechanics. Prerequisite: Engineering 222, 260, Mathematics 305.

**451-3 Introduction to Finite Elements in Engineering Applications.** (Same as Civil Engineering 451.) An introduction to finite element techniques and computer methods in finite element applications. Theory and structure of algorithms for one-dimensional and multi-dimensional problems. Introduction to boundary element methods. Application in solid mechanics, structural analysis, groundwater flow, and heat transfer. Prerequisite: 351 or equivalent.

**458-3 Photoelasticity.** Optics related to photoelasticity; theory of photoelasticity; photoelastic materials; analysis techniques; two-dimensional and three-dimensional photoelasticity; birefringent coatings; scattered light photoelasticity; application of photoelastic methods. Laboratory. Prerequisite: Engineering 311.

**470-3 Engineering Analysis.** Methods of solution for basic ordinary differential equations with applications to engineering systems. Basic methods of solution for partial differential equations with emphasis on applications of the Laplace, Poisson, and heat equations to engineering problems. Basic vector field theory; transformation theorems. Simulation techniques applied to engineering systems. Prerequisite: Mathematics 305 or equivalent.

**483-3 Engineering Design.** Provides the senior engineering student with a design experience involving two or more of the following disciplines: solid mechanics, fluid mechanics, dynamics/vibrations, and materials. The course is directed toward the development of attitudes and approaches to the design process rather than specific design techniques. Students working in small teams will select a problem, define and design the system components into a final design, and document the design effort. Not for graduate credit. Prerequisite: graduating senior standing.

**492-1 to 4 Special Problems in Engineering.** Selected engineering topics and/or problems in (a) stress analysis, (b) fluid flow analysis, (c) structural engineering, (d) computational mechanics, (e) materials engineering, and (f) dynamics. Four hours maximum course credit. Prerequisite: consent of instructor.

**510-3 Computational Fluid Dynamics.**

**512-3 Theory of Elasticity.**

**513-3 Mechanics of Viscous Fluids.**

**514-3 Mechanics of Inviscid Fluids.**

**515-3 Transient Hydraulic Transport.**

**518-3 Introduction to Turbulence.**

**520-3 Finite Element Analysis.**

**540-3 Elastic Stability.**

**542-3 Theory of Plates.**

**550-3 Advanced Compressible Fluid Flow.**

**561-3 Structural Dynamics.**

**580-1 to 4 Seminar.**

**592-1 to 4 Special Investigations in Engineering.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## THERMAL AND ENVIRONMENTAL ENGINEERING (Department, Major [Engineering], Courses)

The option in thermal and environmental engineering prepares graduates to provide engineering solutions to problems such as optimum energy utilization, conservation of resources and environmental protection by working in or across the areas associated with traditional engineering disciplines. This option allows study of energy and environmental areas. The energy areas include heat and mass transfer, thermal systems and processes such as solar, coal conversion, electric power plants, refrigeration, engines. The environmental areas include wastewater, potable water, air pollution, waste heat, solid waste, and industrial waste. Previous graduates are successfully practicing in manufacturing and energy industries, in consulting engineering firms, in state and federal agencies, and in graduate studies.

**Bachelor of Science Degree, College of Engineering and Technology****ENGINEERING MAJOR – THERMAL AND ENVIRONMENTAL ENGINEERING SPECIALIZATION**

<i>General Education Requirements</i> .....	30 <sup>1</sup>
GE-A: Substitute basic science	
GE-B: Choose from approved list <sup>2</sup> .....	9
GE-C: Choose from approved list <sup>2</sup> .....	9
GE-D: GE-D 101, 118, 152 or 153 and substitute mathematics .....	8
GE-E .....	4
<i>Requirements for Major in Engineering</i> .....	102
Basic Sciences .....	18 <sup>3</sup>
Physics 205a,b; 255a,b .....	8
Chemistry 222a and 222c .....	7
GE-A 115 .....	3
Mathematics 150, 250, 251, 305 and approved elective-3 .....	17
Engineering .....	27
General: Engineering 100, 222, 361 .....	7
Engineering Sciences .....	20
Engineering 260a,b, 300, 302, 313, 335, and one of 345, 385 or Electrical Engineering 225	
Specialization in Thermal and Environmental Engineering .....	40
Engineering Sciences .....	12
Civil Engineering 314; select three from the following: Engineering 311, 312, 455, Mechanical Engineering 301, 400, 405, 464, 465	
Engineering Design .....	19
Mechanical Engineering 404, 408, 435, 3 hours of 443; select two from the following: Mechanical Engineering 402, 406, 416, 440, 442, 444, 475, Civil Engineering 409, 415, 419	
Engineering Laboratory .....	1
Mechanical Engineering 401 or 418 or Civil Engineering 417	
Other required courses .....	1
One hour of Mechanical Engineering 443	
Approved technical electives .....	7
<i>Total</i> .....	132

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education, making a total of 45 in that area.<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-B and GE-C are more restrictive than those of the University as a whole.<sup>3</sup>Transfer student holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or designate, meet this requirement.**Courses**

For course descriptions of courses in the thermal and environmental engineering specialization, see listing under the mechanical engineering major and the civil engineering major.

**MECHANICAL ENGINEERING AND ENERGY PROCESSES (Department)**

The Department of Mechanical Engineering and Energy Processes offers the thermal and environmental engineering option in the baccalaureate engineering program (see engineering); this program and option are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.



A new Bachelor of Science in mechanical engineering major described below is available.

MECHANICAL ENGINEERING (Major, Courses)

Mechanical engineering is one of the most broadly based of the traditional engineering disciplines. Mechanical engineers design and develop a wide variety of systems for conversion, transmission, and utilization of energy; for material processing and handling and packaging; for transportation; for environmental control; and for many other purposes for the benefit of humanity. Therefore the curriculum contains a broad foundation in mathematics and the basic and engineering sciences, followed by more concentrated study in energy and machine systems.

Mechanical engineers may be found in a variety of assignments including planning and design, research and development, supervision of installation and operation of complex systems, and management.

It is recommended that students desiring the degree Bachelor of Science with a mechanical engineering major concurrently pursue the accredited thermal and environmental engineering option in the baccalaureate major in engineering. Then, through appropriate selection of electives in that option and with additional coursework, one can earn both degrees with a total of 150 hours minimum.

Bachelor of Science Degree, College of Engineering and Technology

<i>General Education Requirements</i> .....	30 <sup>1</sup>
GE-A: Substitute basic science	
GE-B: Choose from approved list <sup>2</sup> .....	9
GE-C: Choose from approved list <sup>2</sup> .....	9
GE-D: GE-D 101, 118, 152 or 153 and substitute mathematics .....	8
GE-E .....	4
<i>Requirements for Major in Mechanical Engineering</i> .....	102
Basic Sciences .....	18 <sup>3</sup>
Physics 205a,b; 255a,b .....	8
Chemistry 222a,c .....	7
GE-A: 115 .....	3
Mathematics 150, 250, 251, 305, and approved elective-3. ....	17
Mechanical Engineering .....	67
General: Engineering 100, 222, 361 .....	7
Engineering Sciences .....	34
Engineering 260a,b, 300, 302, 311, 312, 313, 335 and one of 345, 385 or Electrical Engineering 225	
Mechanical Engineering 310; either 301 or 400; and 2 semester hours of Engineering Mechanics 441 or Mechanical Engineering 470	
Engineering Design .....	16
1 semester hour of Engineering Mechanics 441 or Mechanical Engineering 470; Mechanical Engineering 402, 475; 3 semester hours of 443; select 6 semester hours from 404, 406, 408, 416, 430, 435, 436, 440, 442, 444, 472, 476, and Civil Engineering 413	

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education, making a total of 45 in that area.  
<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-B and GE-C are more restrictive than those of the University as a whole.  
<sup>3</sup>Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.

Other required courses .....	7
Mechanical Engineering 303; 401 or 403; 1 semester hour of 443; Engineering Mechanics 351	
Approved technical electives .....	3
<b>Total</b> .....	<b>132</b>

## Courses

Safety glasses, an electronic calculator or a slide rule with log-log scales, and textbooks are required of all mechanical engineering students.

**301-3 Engineering Thermodynamics II.** Combined first and second law analysis; availability and reversibility. Third Law. General thermodynamic relations. Reactive systems. Thermodynamic equilibrium. Phase Rule. Applications. Thermodynamics of one dimensional fluid flow. Prerequisite: Engineering 300.

**303-2 Introductory Measurement, Instrumentation, and Device Control Laboratory.** Experiments applicable to the use of modern microcompressor based electronic equipment for data acquisition, interpretation, and control in mechanical devices. Prerequisite: Engineering 335.

**310-3 Mechanisms/Kinematics.** Introduction to the kinematics of machines. Topics include absolute and relative displacement, velocity, and acceleration and calculation methods. Applications include cams, linkages, rotary to/from linear motion transformation mechanisms, steady to intermittent motion mechanisms. Cardan and constant velocity joints and similar machine components. Prerequisite: Engineering 260b and 222.

**400-3 Power and Refrigeration Cycles.** Use of engineering thermodynamics in analysis of power and refrigeration cycles. Detailed treatment of various gas and vapor power cycles including combined gas and steam cycles. Thermodynamics of combustion. Gas and vapor refrigeration cycles. First and Second Law analysis and turbo-machinery. Prerequisite: Engineering 300.

**401-1 Thermal Measurements Laboratory.** Study of basic physical measurements used in the thermal sciences. Calibration techniques for temperature sensors. Transient and steady-state error analysis. Thermal and transport property measurements. Prerequisite: Engineering 302.

**402-3 Heat Exchange Equipment Design.** Two phase flow and heat transfer. Design of heat exchangers: liquid-liquid/gas-liquid/gas-gas, moist air heating and cooling coils, evaporators and condensers, heat pipes. Prerequisite: Engineering 222, 300, 302, and 313.

**403-1 Mechanical Engineering Measurements Laboratory.** To familiarize students with the use of instruments to measure time, distance, velocity, acceleration, strain, fluid flow, and turbulence. Instruments include micrometers, laser distance meters, stroboscopes, oscilloscopes, strain gages and read out equipment, analog/digital convertors, pressure transducers, radioactive particle tracers, and polariscopes and related equipment. Prerequisite: Engineering 311, 313, 335.

**404-4 Optimization of Process Systems.** The simulation and optimization of industrial process systems based on the principles of thermodynamics, heat transfer, mass transfer, and fluid mechanics. The analysis and correlation of experimental engineering data, and the use of the correlated data in process simulations. The mathematical modeling of the performance of energy transfer and environmental treatment equipment (pumps, turbines, mass and heat exchangers, etc.) from analytical predictions and experimental results. The application of the principal optimization methods encountered in engineering practice. Computer applications. Prerequisite: Engineering 361, Mathematics 305 and senior standing in engineering.

**405-3 Internal Combustion Engines and Gas Turbines.** Operation and performance characteristics of Otto, Diesel, Wankel engines and gas turbines. Methods of engine testing, types of fuels and their characteristics, fuel metering systems, engine combustion analysis as related to engine performance, fuel characteristics and air pollution, exhaust gas analysis, and air pollution control. Prerequisite: 301.

**406-3 Thermal Systems Design.** Application of the principles of engineering analysis to the design of thermal systems. Consideration of such systems as refrigerators, building air conditioning systems, spacecraft control systems, solar heating systems, and gas liquefying systems. Prerequisite: Engineering 300, 302.

**408-3 Energy Conversion Systems.** Principles of advanced energy conversion systems; nuclear, fossil fuel, and combined cycle power plants and magnetohydrodynamics, cogeneration of electricity and process steam, heat pumps. Constraints on design and use of energy conversion systems; energy resources, environmental effects, and economics. Prerequisite: Engineering 300.

**416-3 Air Pollution Control.** Engineering control theory, procedures, equipment, and economics related to particulate and gaseous emissions control. The environmental impact of controlling emissions. Sampling and analysis procedures. Laboratory work includes design, construction, and use of a source sampling system. Safety glasses are required. Concurrent enrollment in 418 is recommended for students in thermal and environmental engineering option. Prerequisite: 314.

**418-1 Air Quality Laboratory.** This laboratory consists of design, construction, and use of systems to measure and analyze ambient atmospheric pollution. Safety glasses required. Prerequisite: concurrent enrollment in 416.

**430-3 Kinematic Synthesis.** Kinematic synthesis of linkages, single loop and multiple loop



mechanisms, and geared linkages. Vector synthesis of spatial mechanism and its computer simulation. Prerequisite: 310.

**435-3 Mass Transfer Processes.** Mass transfer principles and processes. The rate mechanism of molecular, convective and interphase mass diffusion. Simultaneous heat and mass transfer. The process design of industrial mass transport operations such as absorption, humidification, water-cooling, drying, distillation, and adsorption. Prerequisite: Engineering 302.

**436-3 Mechanical Systems Control.** Mathematical modelling of controls for mechanical systems. Dynamic behavior of controlled machines. Design of controlled mechanical systems. Prerequisite: 303 and 470 or consent of instructor.

**440-3 Heating, Ventilating, and Air Conditioning Systems Design.** Principles of human thermal comfort. Heating and cooling load analysis. HVAC system design. Air conditioning processes. Prerequisite: Engineering 300, 302.

**442-3 Solar Heating Design – Residential Systems.** Design of solar heating systems for residence with emphasis on passive systems. Heat flow and heat loss. Estimating heat loss and heating requirements of buildings. Energy conserving building design. Predicting performance and economics of a system. Prerequisite: Engineering 300, 313.

**443-4 Engineering Design.** Projects of an engineering systems design nature. For a specific project, define and design the various subsystems, define subsystem interface requirements, integrate the subsystems into the final design, and document and design effort. Laboratory. Not for graduate credit. Prerequisite: senior standing in mechanical engineering.

**444-3 Solar Energy Design – Commercial and Industrial Systems.** Energy auditing and energy conservation techniques for commercial and industrial buildings. Active solar heating and cooling systems. Computer simulation models. Economic evaluation. Industrial process heating systems. Prerequisite: Engineering 300, 302, 313.

**464-2 Physical Metallurgy and Ceramics.** Structure/composition determination for bulk and surfaces. Thermodynamics of solutions. Phase transformations. Structure and properties of aggregate and composite materials. Corrosion. Dislocation theory. Plastic flow. Fracture. Failure analysis. Prerequisite: Engineering 222, 312.

**465-3 Materials Preparation and Processing.** Forming and processing of materials. Solidification: single crystal techniques, plane front and dendritic solidification, microsegregation, non-equilibrium structures. Vapor deposition: fractionation, physical vapor deposition, ion plating, sputtering. Thermal processing of solids: homogenization, crystallization, precipitation. Powder preparation, sintering, and densification. Deformation processing: rolling, forging, extrusion, drawing, preferred orientation. Prerequisite: 464.

**470-3 Simulation and Control of Machines.** Dynamic simulation and control of machines. Balancing. Response of machine components and combinations to periodic and non-periodic loading. Suspension systems Laplace transform, transfer functions, open and closed control loops. Response of basic control systems. Prerequisite: Engineering 260b and Mathematics 305.

**472-3 Materials Selection for Design.** Interaction of design parameters and materials selection parameters; comparison of alternative materials, thermomechanical processing, selection of materials, processing and fabrication to meet the requirements of a design in the student's areas of specialization. Prerequisite: 222, 312.

**475-3 Machine Design I.** Design of machines using bearings, belts, clutches, chains, and brakes. Develops application of the theory of fatigue, power transmission, and lubrication to the analysis and design of machine elements. Prerequisite: 310, Engineering 222 and 311.

**476-3 Machine Design II.** Design of machines using gears, springs, screws and fasteners, and adhesives. Matching power sources to driven machines. Prerequisite: 475.

**492-1 to 5 Special Problems in Engineering.** Engineering topics and problems selected by either the instructor or the student with the approval of the instructor. Five hours maximum course credit. Prerequisite: senior standing and consent of instructor.

**500-3 Advanced Engineering Thermodynamics.**

**501-3 Transport Phenomena.**

**502-3 Advanced Heat Transfer.**

**503-3 Convective Heat Transfer.**

**504-3 X-Ray Diffraction and the Solid State.**

**505-3 Physical Properties of Crystalline Materials.**

**506-3 Solidification Processing.**

**507-3 Combustion Phenomena.**

**509-3 Thermal Radiation Heat Transfer.**

**510-3 Electrochemical Engineering.**

**520-3 Coal Conversion and Combustion Processes.**

**525-3 Small Particle Phenomena.**

**531-4 Reaction Engineering and Rate Processes.**

**532-3 Separation Processes and Equilibrium Operations.**

**535-3 Computer Aided Analysis of Mechanical Systems I.**

**536-3 Computer Aided Analysis of Mechanical Systems II.**

**540-3 Introduction to Continuum Mechanics.**

**580-1 to 4 Seminar.**

**581-1 Scientific Evaluation and Research in Engineering.**

**592-1 to 4 Special Investigations in Engineering.**

599-1 to 6 Thesis.

601-1 to 12 per semester Continuing Research.

**MINING ENGINEERING (Department, Major, Courses)**

The mining engineering major replaces the mining engineering option of the engineering program. The major is accredited by ABET and this change will not affect coursework or student requirements in any way.

Mining engineers engage in planning, design, development, and management of surface and underground mining operations for exploitation of the earth's mineral deposits. The mining engineering program prepares graduates to meet the challenges of the mining industry. Coursework in the program includes such areas as surface and underground mining systems, mine ventilation, ground control and rock mechanics, mineral and coal processing, material handling systems, mineral economics, mine health and safety engineering, operations research, and computer-aided mine design. Facilities include modern, well-equipped rock mechanics, mine ventilation and mineral processing laboratories.

After completing the program, the graduate may work in an engineering or management position for mining industries, equipment manufacturing concern, research organizations, or government agencies. The coursework also provides strong preparation for further study at the graduate level.

**Bachelor of Science Degree, College of Engineering and Technology**

<i>General Education Requirements</i> .....	30 <sup>1</sup>
GE-A: Substitute basic science .....	
GE-B: Choose from approved list <sup>2</sup> .....	9
GE-C: Choose from approved list <sup>2</sup> .....	9
GE-D: GE-D 101, 118, 153 and substitute mathematics .....	8
GE-E .....	4
<i>Requirements for Major in Mining Engineering</i> .....	103
Basic Sciences .....	21 <sup>3</sup>
Physics 205a,b; 255a,b .....	8
Chemistry 222a,c .....	7
Geology 390 .....	3
GE-A: biological science <sup>4</sup> .....	3
Mathematics 150, 250, 251, 305, and approved elective-3 .....	17
Engineering .....	65
General: Engineering 100, 222, 361 .....	7
Engineering Science .....	39
Engineering 260a,b, 300, 302, 311, 313, 335, 385;	
MNGE 400; A maximum of 1 hour in each of these	
courses will count toward the requirement: MNGE	
435, 455. A maximum of 1½ hours in each of these	
courses will count toward the requirement: MNGE	
410, 425. A maximum of 2 hours in each of these	
courses will count toward the requirement: MNGE	
320, 415, 420, 431 .....	
Engineering Design .....	19
MNGE 440, 475. A maximum of 1 hour in each of	
these courses will count toward the requirement:	
MNGE 320, 415, 420, 431, 455. A maximum of 1½	

<sup>1</sup>Courses required for the major will apply toward 15 hours of General Education, making a total 45 in that area.

<sup>2</sup>See departmental adviser for current approved list. Engineering requirements for GE-B and GE-C are more restrictive than those of the University as a whole.

<sup>3</sup>Transfer students holding the associate degree in a baccalaureate-oriented program, and having at least 18 semester hours of basic science approved by the department chairperson or a designate, meet this requirement.

<sup>4</sup>Or designated substitute.



hours in each of these courses will count toward the requirement: MNGE 410, 425. A maximum of 2 hours in each of these courses will count toward the requirement: MNGE 435. Select one of the following: MNGE 460, 465.

Total.....	133
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Courses

- 320-3 Surveying for Engineers.** Analysis and application of tacheometry and mine correlation. Aerial surveying. Engineering design of haulage curves. Production measurement. Geophysical and borehole surveying. Land-Surveying. Laboratory. Prerequisite: Mathematics 251, junior standing in engineering.
- 400-3 Principles of Mining Engineering.** Basic principles of mineral exploration, development, and processing. Environmental problems related to mineral development. Prerequisite: junior standing in engineering.
- 401-1 Mining Environmental Impacts and Permits.** Socio-economic impacts of mining industry. Analyzing the markets for coal and its products. Mining operations and related environmental impacts. Mining permits. Prerequisite: 400 or consent of instructor.
- 410-3 Underground Mining Systems Design.** Study of coal property evaluation. Underground mining methods. Design of mine production and its ancillary systems and subsystems. Prerequisite: 320, 400, Geology 390.
- 411-2 Mine Machinery.** Analysis and design of underground and surface mining machinery. Equipment and parts selection. System development. Preventive maintenance. Prerequisite: 410.
- 413-2 Mine Power Systems.** Study of electrical, hydraulic and pneumatic mine power systems. Selection and design of power systems and their components. Related economics and decision making criteria. Prerequisite: 410, and Engineering 385, or equivalent, or consent of instructor.
- 415-3 Surface Mining and Land Reclamation.** Surface mining systems for coal and non-coal minerals. Development of mining operations, equipment selection, mine planning and design, land reclamation, erosion and sedimentation control. Prerequisite: 320, 400, Geology 390.
- 420-3 Mineral and Coal Processing.** Impurities in coal and their impact on the market. Impurities liberation and separation methods. Product preparation. Coal washability characteristics. Flow sheet development. Recovery of minerals from tailings, slurry ponds and mine waste. Economics of mineral processing. Laboratory. Prerequisite: 400, Geology 390.
- 425-3 Mine Ventilation Systems Design.** Study of the theories and practice of natural and forced mine ventilation. Fan and mine characteristics. Ventilation network analysis. Mine ventilation design and problem analysis. Laboratory. Prerequisite: 410 and Engineering 313.
- 431-3 Rock Mechanics and Ground Control.** Analysis of stress and strain, elementary elasticity, stress distribution around mine openings and pillars, engineering properties of rocks, support of mine workings, subsidence, design of mine openings. Laboratory. Prerequisite: 410 and Engineering 311.
- 435-3 Operations Research and Computers in Mine Design.** Mine systems analysis, operations research and statistics in decision making, production engineering, mine planning, optimization, linear programming, computer simulation. Prerequisite: 410, 415, Engineering 222 and 361.
- 440-3 Design of Material Handling Systems.** Study of material handling systems selection. Systems design and development. Material handling economics. Prerequisite: 410, 415 or concurrent enrollment, Engineering 361.
- 455-2 Mine Health and Safety Engineering.** Analysis of mine hazards and accidents, sealing and recovery of mines, design of mine emergency plans, safety methods, and health hazard control plans. Prerequisite: 410, and 415.
- 460-3 Computer-Aided Underground Mine Design Projects.** Projects in planning and design of underground mining systems. Evaluate and design mining subsystems; integrate subsystems and procedures into a preliminary mine design; and optimize operations from exploration to closure. One lecture and two two-hour laboratories per week. Prerequisite: 420, 425, 431, 440, or consent of instructor.
- 465-3 Computer-Aided Surface Mine Design Projects.** Projects in planning and design of surface mining systems. Evaluate a potential mine site; select appropriate mining methods; define and design mining and reclamation subsystems; integrate subsystems and procedures into a preliminary mine design; and optimize operations from exploration to bond release. One lecture and two two-hour laboratories per week. Prerequisite: 415, 420, 431, 440, or consent of instructor.
- 470-3 Experimental Methods in Rock Mechanics.** Supplement theoretical knowledge gained in 431 with laboratory experiments. Physical property tests for specific gravity, moisture, density porosity of rocks. Unconfined and confined compressive strength, tensile strength, shear strength, photoelasticity, static and dynamic strain measurement systems, field instrumentation techniques. Laboratory. Prerequisite: 431.
- 475-3 Design of Mine Excavations.** Rock classification; design of shafts, slopes, tunnels, and underground chambers; support requirements; design of slopes; design of underground mining systems from ground control point of view; design of impoundments. Prerequisite: 415 and 431.

- 492-1 to 5 Special Problems in Mining Engineering. Topics and problems selected either by the instructor or the student with the approval of the instructor. Five hours maximum course credit. Prerequisite: senior standing and consent of instructor.
- 511-3 Advanced Ground Control.
- 519-2 Advanced Mine Environment and Pollution Control.
- 530-3 Mine Management.
- 535-3 Rock Fragmentation.
- 540-3 Production Engineering in Coal Mines.
- 545-3 Tunnelling.
- 580-1 to 2 Seminar.
- 592-1 to 5 Special Investigations.
- 599-1 to 6 Thesis.
- 601-1 to 12 per semester Continuing Research.

## Engineering Mechanics

(SEE ENGINEERING)

## Engineering Technology (Major, Courses)

Engineering technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities; it lies in the occupational spectrum between the technician and the engineer at the end of the spectrum closest to the engineer.

All curricula in engineering technology are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (formerly the Engineers' Council for Professional Development). These curricula are the civil engineering technology, electrical engineering technology, and mechanical engineering technology specializations. For each curriculum, a minimum of 30 hours in engineering technology courses must be taken in residence at Southern Illinois University.

### Bachelor of Science Degree, College of Engineering and Technology

ENGINEERING TECHNOLOGY MAJOR – CIVIL ENGINEERING TECHNOLOGY SPECIALIZATION

The civil engineering technology specialization is primarily suited for those students interested in pursuing careers in the construction industry. However, the broad range of studies ensures a solid technical background in many areas of civil engineering technology. Graduates of the program are employed by architectural engineering firms, mining companies, state and local highway departments, and construction firms.

<i>General Education Requirements</i> .....	33 <sup>1</sup>
GE-A: Biology and substitute basic science .....	3
GE-B:.....	9
GE-C:.....	9
GE-D: GE-D 101, 118, and 152 or 153 and substitute mathematics .....	8
GE-E:.....	4
<i>Requirements for Major in Engineering Technology with Civil     Engineering Technology Specialization</i> .....	91
Basic Sciences: Physics 203a, b, 253a, b; Chemistry 115 .....	11
Mathematics 111, 150, 250.....	13
Engineering 222 .....	2
Management 202.....	3

<sup>1</sup>Courses required in the major will apply toward 12 hours of General Education, making a total of 45 in that area.



Engineering Technology 103, 202, 260a, 263, 310a, 311, 314a, 315, 317, 319, 364a, 365, 390, 415, and one of 361, 362, or 363.....	45
Approved technical electives.....	14
Electives.....	3
<i>Total</i> .....	124

ENGINEERING TECHNOLOGY MAJOR – ELECTRICAL ENGINEERING TECHNOLOGY  
SPECIALIZATION

The electrical engineering technology specialization is designed to prepare technologists who are capable of technical design and who can contribute to the development, production, testing, and installation of electrical and electronic devices, circuits, and systems. In addition, graduates are capable of participation in the planning and installation of power distribution systems and operating and maintaining complex electrical systems. Graduates of the program are employed in communications, power, electronics, sales, manufacturing, and other fields.

<i>General Education Requirements</i> .....	33 <sup>1</sup>
GE-A: Biology and substitute basic sciences .....	3
GE-B:.....	9
GE-C:.....	9
GE-D: GE-D 101, 118, and 152 or 153 and substitute mathematics .....	8
GE-E:.....	4
<i>Requirements for Major in Engineering Technology with Electrical Engineering Technology Specialization</i> .....	92
Basic Sciences: Physics 203a, b, 253a, b; Chemistry 115 .....	11
Mathematics 108, 109, 150, 250.....	14
Management 202.....	3
Engineering 222 .....	2
Engineering Technology 238, 245a, 304a, 304b, 332a, 332b, 403a, 403b, 437a, 437b, 438a, 438b .....	48
Approved technical electives.....	11
Electives .....	3
<i>Total</i> .....	125

<sup>1</sup>Courses required in the major will apply toward 12 hours in General Education, making a total of 45 in that area.

ENGINEERING TECHNOLOGY MAJOR – MECHANICAL ENGINEERING TECHNOLOGY  
SPECIALIZATION

The mechanical engineering technology specialization is designed to prepare graduates for a career in power and manufacturing industries; it provides a diverse background in general mechanical technology focusing in such areas as fluid power, computer-aided drawing, thermal science, mechanical design technology and mechanical aspects of manufacturing systems. Graduates are employed by electric utilities, manufacturing firms, architectural/engineering firms, and other industries which deal with mechanical products or equipment.

<i>General Education Requirements</i> .....	33 <sup>1</sup>
GE-A: Biology and substitute basic science .....	3
GE-B:.....	9
GE-C:.....	9

<sup>1</sup>Courses required in the major will apply toward 12 hours in General Education, making a total of 45 in that area.

GE-D: GE-D 101, 118, and 152 or 153 and substitute mathematics .....	8
GE-E: .....	4
<i>Requirements for Major in Engineering Technology with Mechanical Engineering Technology Specialization</i> .....	
Basic Sciences: Physics 203a, b, 253a, b; Chemistry 115 .....	11
Mathematics 111, 150, 250 .....	13
Engineering 222 .....	2
Management 202 .....	3
Engineering Technology 103, 104, 245a, 260a, 260b, 301a, 311, 313a, 313b, 317, 318, 390, 404, 408, 424a .....	45
Industrial Technology 209, 340, 455 .....	9
Approved technical electives .....	8
<b>Total</b> .....	<b>124</b>

## Courses

A suitable calculator and textbooks are required for most of the following courses.

**103-3 Engineering Drawing I.** Principles and practices of engineering drawing. Orthographic (multiview) projection; sections and conventions; the spatial relationship of points, lines, and planes; and revolution. Drawing supplies and problems workbook required, costing approximately \$15.

**104-3 Engineering Drawing II.** Principles and practices of engineering drawing. Representation of mechanical components; dimensioning; tolerancing; location and form tolerancing; fluid power diagrams; and welding symbols. Prerequisite: 103.

**202-2 Structural Detailing.** Principles and practices of engineering drawing as applied to structural design with emphasis on reinforced concrete and structural steel drawings. Drawing supplies required, cost \$8. Prerequisite: 103.

**236-2 Electrical Instrumentation.** Theory and use of D.C. and A.C. instruments; measurement and error, units, standards, meters, bridges, oscilloscopes, electronic instruments, instruments for generation and analysis of waveforms, counters, and transducers. Laboratory. Prerequisite: Mathematics 111.

**238-4 Digital Fundamentals.** Introduction to fundamental concepts of digital systems, logic gates, simulation of logic gates, combinational logic design, Karnaugh maps, number systems, flip-flops, sequential circuits, digital circuit fault analysis, and comparison of logic families. Laboratory. Prerequisite: Mathematics 111.

**245-8 (4, 4) Electrical Systems for Industry.** (a) Electrical symbols and schematics, resistance, Ohm's Law, capacitance, inductance, Kirchhoff's Law, meters, A.C. fundamentals, transformers, power factor, and safety. Laboratory. Prerequisite: Mathematics 111. (b) Introduction to electronics: laboratory practices, oscilloscopes, meters, components, power supplies, amplifiers, and characteristics of semiconductor devices. Laboratory. Prerequisite: Mathematics 111.

**260-6 (3, 3) Principles of Mechanics.** (a) Statics. Concepts of force systems, moments, and equilibrium of rigid bodies, analysis of trusses and frames, determination of centroids, center of gravity, and moments of inertia, calculation of shear and moment diagrams in beams. Prerequisite: Mathematics 150 or concurrent enrollment. (b) Dynamics. Friction; particles and rigid bodies in translation, rotation, and plane motion; relative motion; impulse and momentum; work and energy. Prerequisite: 260a, Mathematics 150.

**263-3 Basic Surveying.** Use and care of surveying instruments; principles of surveying practice and computation. Laboratory. Prerequisite: 103, Mathematics 111.

**301-6 (3, 3) Refrigeration and Air Conditioning.** (a) Discussion of refrigerating cycles. Refrigeration at more than one level. Operation and ratings of various types of compressors, evaporators, condensers, and automatic controls used in commercial refrigerating systems. Heat flow problems in condensers, evaporators, and cooling towers. Laboratory. Prerequisite: 313a. (b) Control of temperature and humidity in buildings, or other large areas. Air handling equipment, duct systems, and air distribution within the space. Fundamental principles and techniques for cooling and dehumidification for comfort. Equipment and control systems. Prerequisite: 313a.

**304-8 (4, 4) Electrical Circuits.** (a) Solutions to D.C. steady-state networks by branch, equivalent circuit, loop circuit, and node voltage methods. Study of network theorems. Extension of these topics to A.C. steady-state by use of the phasor transform. Laboratory. Prerequisite: 245a Mathematics 150 or concurrent enrollment. (b) Further topics in A.C. circuits; frequency response, resonance, filters, transformers and magnetic coupling, complex power, and dependent sources. Transient response by the classical solution of differential equations and by Laplace transform methods. Laboratory. Prerequisite: 304a, Engineering 222, Mathematics 250 or concurrent enrollment.

**310-6 (3, 3) Heavy Construction.** (a) The fundamental elements of heavy construction methods



and equipment. Prerequisite: 260a or consent of instructor. **(b)** Construction planning, estimating, and management procedures and techniques. Civil engineer's scale required. Prerequisite: 310a.

**311-3 Strength of Materials.** Stress and strain; torsion, bending, and combined stresses; beam deflections; behavior of columns. Laboratory. Prerequisite: 260a.

**313-6 (3, 3) Elementary Heat Power.** **(a)** Fundamental laws of heat power, properties of systems, liquids, vapors, and liquid-vapor mixtures. Prerequisite: Mathematics 150. **(b)** Engine cycles and applications. Fuels, combustion, and nozzles. Laboratory. Prerequisite: 313a.

**314-6 (3, 3) Soil Mechanics.** **(a)** Laboratory determination of the basic properties of soils; components of soil surveys; engineering soil classifications; fundamental study of soil properties. Laboratory. Laboratory notebook required, costing approximately \$4. **(b)** Soil water and seepage; frost action in soils; soil stabilization; stress distribution in soils and introduction to foundation design. Prerequisite: 260a, 314a.

**315-3 Elementary Structural Analysis.** Applications of the principles of mechanics to the determination of forces and deflections of statically determinate structures; approximate methods of determining member forces in indeterminate frames; study of various types of structures and loading conditions. Prerequisite: 260a, Engineering 222 or concurrent enrollment.

**317-2 Fluid Mechanics.** Fundamentals of fluid statics, basic fluid flow concepts for idealized fluids, flow networks, and introduction to viscous fluids. Prerequisite: Mathematics 111.

**318-3 Hydraulics and Pneumatics.** Viscous flow in closed conduits, basic hydraulic machinery, and fluid power systems. Laboratory. Prerequisite: 317.

**319-3 Municipal Hydraulics.** Flow measuring devices; collection, storage, and distribution of water; collection and transportation of sewage; pumps and pumping. Laboratory. Prerequisite: 317.

**321-3 Instrumentation and Controls.** Analog and digital signal conditioning; thermal, mechanical, and optical transducers; electrical pneumatic and hydraulic actuators; and control loop dynamics. Laboratory. Prerequisite: 245a.

**332-8 (4, 4) Electromagnetic Principles and Devices.** **(a)** Introduction to D.C. and A.C. machinery. Theory and operating characteristics of D.C. generators and D.C. motors. Laboratory. Prerequisite: 304a or concurrent enrollment. **(b)** Theory and operating characteristics of polyphase and single-phase A.C. motors. Special applications of A.C. and D.C. motors. Laboratory. Prerequisite: 332a, 304a or concurrent enrollment.

**342-2 Technology Design.** An elective project on any technical subject selected by the student with advice from the instructor. Stimulates original thought and creativity. Prerequisite: senior standing.

**361-3 Project Surveying.** Surveying process for civil engineering projects; easements; precise surveying; related computations. Laboratory. Prerequisite: 263.

**362-3 Land Surveying.** U.S. Public Land System and boundary surveys; survey laws; legal descriptions; title search; related computations; subdivision development. Laboratory. Prerequisite: 263.

**363-3 Control Surveying.** Topographic surveying; geodesy; route surveying; construction stake-out; related computations. Laboratory. Prerequisite: 263.

**364-7 (4, 3) Highway Engineering Technology.** **(a)** Highway surveys, plans and computations. Highway design, drainage, roadside development and subgrade structure. Study of types of base courses, pavements, and surfaces. Highway construction and maintenance. Laboratory. Prerequisite: 263 or consent of instructor. **(b)** Highway administration, planning, economics, and finances. Traffic engineering. Introduction to railroad and airport design. Prerequisite: 364a.

**365-3 Water Treatment and Sanitation.** Introduction, description, and design of potable water and wastewater facilities. Chemical coagulation, sedimentation, disinfection, and hardness removal of water. Sanitation measures and control of communicable diseases. Prerequisite: senior standing in civil engineering technology or consent of instructor.

**390-3 Cost Estimating.** (Same as Industrial Technology 390.) Study of the techniques of cost estimation for products, processes, equipment, projects, and systems. Prerequisite: Mathematics 111.

**403-8 (4, 4) Electronics Technology.** **(a)** Fundamental theory and operation of semiconductor diodes and bipolar transistors, incremental models for transistors, biasing, stability, and feedback of single and multistage amplifiers. Parameters and applications of field-effect transistors, optoelectronic devices, thyristors, unijunction transistors and amorphous semi-conductors. Laboratory. **(b)** Parameters and applications of operational amplifiers, linear integrated circuits, monolithic voltage regulators, and digital integrated circuits. Laboratory. Must be taken in a,b sequence. Prerequisite: 304b.

**404-3 Machine Design Technology.** Strength and safety considerations in design of machine parts. Fatigue and stress concentrations, bearings, brakes, clutches, and springs. Applications of the principles of mechanics to problems of design and development, mechanisms. Laboratory. Not for graduate credit. Prerequisite: 260a, 311.

**408-3 Computer Assisted Drawing and Design.** Theory and practice of computer graphics as applied to computer assisted design. Use of programming and commercial programs to assist in mechanical engineering technology design projects. Not for graduate credit. Prerequisite: 103, 404, Engineering 222, and senior standing.

**415-4 Elementary Structural Design.** Introduction to structural properties of steel and reinforced concrete. Design of basic steel elements: tension members, beams, columns, and connec-



tions. Basic design of reinforced concrete elements: beams, columns, and footings. Use of AISC and ACI codes. Prerequisite: 202, 311 (or concurrent enrollment), 315.

**424-6 (3, 3) Power Systems Technology.** (a) Fundamentals of basic power plant operation and equipment; e.g., fuels, steam generators, heat exchangers, turbines, pumps, and nuclear reactors. Prerequisite: 313a, Engineering 222. (b) A study of cycles, heat balances, efficiencies, and power plant economics. Student is exposed to the design considerations and trade-offs associated with the total design of a power plant. Prerequisite: 318, 424a.

**426-4 (2, 2) Photogrammetry.** (a) Cameras and photography; flight planning; mathematical principles of vertical and tilted aerial photographs; ground control methods; extension of control; stereoscopy and parallax; basic instruments, stereo plotters, and latest developments. Laboratory. Prerequisite: 263 or consent of instructor. (b) Rectification of tilted photographs; stereoscopic plotting instruments; principles and use of oblique photography; analytic photogrammetry and new concepts. Laboratory. Prerequisite: 426a or consent of instructor.

**437-8 (4, 4) Communications Systems Technology.** (a) Theory and applications of radio frequency transmission lines, waveguides, optical fibers, wave propagation, and antennas. Laboratory. Prerequisite: 304b. (b) Theory and applications of analog and digital communications systems. Laboratory. Prerequisite: 403a, 437a.

**438-8 (4, 4) Continuous and Digital Control Systems.** (a) Fundamentals of continuous control systems; equation of electrical, hydraulic and thermal systems; application of LaPlace transforms, transfer functions, block diagrams, and flow graphs. Computer implemented graphical analysis and design methods: root locus, frequency response. Nyquist diagrams and compensator design. Continuous systems laboratory. Prerequisite: 304b. (b) Fundamentals of digital control systems, Stepper motors, digital data acquisition and interface components, Fourier transforms, Z transforms, and applications of fast Fourier transform. Digital control laboratory. Prerequisite: 438a.

**439-4 Microprocessor Applications and Hardware.** A study of microprocessor applications and hardware based on microprocessor manufacturer's literature. System configuration, hardware, requirements, typical instruction set, programming, input/output techniques, interfaces, and peripheral devices. Prerequisite: 238.

**492-1 to 6 Special Problems in Industry and Technology.** Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected technical problems. Prerequisite: consent of instructor.

## English (Department, Major, Courses)

The major in English is 36 semester hours at least half of which must be taken at Southern Illinois University. The English major may choose from four specializations.

Students who wish to declare English as a major should consult the director of undergraduate programs in English early in their college careers. Continuing students who wish to declare an English major should petition the Department of English for admission to the department. Transfer students should bring their transcripts and evaluation of transfer credit. Thereafter, all English majors must have their advance registration forms signed by an adviser in the Department of English. Only English courses which are completed with at least a *C* will fulfill a major requirement. Deviations from regular programs must have prior written department approval.

Students who wish to construct an inter-departmental major in English and certain related fields may do so in consultation and with the approval of an English department adviser.

All students are strongly urged to supplement their English majors through the study of classical and modern languages, as well as the study of foreign literature in translation. Majors preparing for graduate school should take two years of a foreign language.

Although a minor field is not required, students are urged to consider complementary minor fields such as foreign languages and literatures, history, philosophy, and journalism.

### ENGLISH CORE CURRICULUM

All students majoring in English will take the following courses:

English 302a, 302b, 309, 390, and 471 or 472.



**Bachelor of Science Degree, College of Education or  
Bachelor of Arts Degree, College of Liberal Arts**

Students who wish to become certified teachers of English may pursue their majors as follows:

<i>General Education Requirements</i> . . . . .	45
GE-C 330 must be taken as a part of the GE-C requirement.	
<i>Requirements for Major in English</i> . . . . .	36
<i>Professional Education Requirements</i> . . . . .	25 <sup>1</sup>
See Teacher Education Program, page 83.	
<i>Electives</i> . . . . .	14
Students in the College of Liberal Arts must complete the college requirements as a part of the 14 hours. (See page 94.)	

<i>Total</i> . . . . .	120
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In addition to the core curriculum teacher training candidates will take the following courses:

English 300; 485; a 400-level course in English literature before 1800; a 400-level course in American literature before 1900; a 400-level course in continental literature; two electives chosen from 300 and 400-level English courses.

<sup>1</sup>In order to qualify for entrance into the teacher education program and for a student teaching assignment, students must have a grade point average of at least 2.50 (A is 4.0) in the major.

**Bachelor of Arts Degree, College of Liberal Arts**

A student may wish to pursue one of several specializations in the College of Liberal Arts. The degree earned and the requirements for the degree are as follows:

<i>General Education Requirements</i> . . . . .	45
GE-C 330 must be taken as a part of the GE-C requirement.	
<i>Supplementary College Requirements</i> . . . . .	6-8
Refer to catalog section titled College of Liberal Arts	
<i>Requirements for Major in English</i> . . . . .	36
<i>Electives</i> . . . . .	31-33
<i>Total</i> . . . . .	120

ENGLISH MAJOR – GENERAL SPECIALIZATION

In addition to the core curriculum, students will take seven electives from the 200, 300, and 400-level courses in English, with several courses at the 400-level. At least one of these elective courses must be a course in English literature before 1800, one a course in American literature before 1900, and one a course in continental literature. In addition, at least one of these elective courses must be in each of the three major genres: prose fiction, poetry, and drama. Students planning to enter graduate school are strongly urged to take two years of a foreign language or the equivalent. Students should consult with their departmental adviser to achieve a suitable range and breadth of course work.

ENGLISH MAJOR – GENERAL WRITING AND CREATIVE WRITING SPECIALIZATION

In addition to the core curriculum, students should take at least two courses selected from English 281, 282, 283; at least two courses from 381, 382, 383; and English 492. Elective courses outside the Department of English may be accepted toward the major with prior written approval of the Department of English.

ENGLISH MAJOR – PREPROFESSIONAL SPECIALIZATION

In addition to the core curriculum, majors interested in such fields as law, business, and government will take the following courses:

English 300, 391, 445; four electives, which may concentrate on a special interest, and which, with the consent of the departmental adviser, may include courses in other departments.

#### ENGLISH MAJOR – DEPARTMENTAL HONORS PROGRAM SPECIALIZATION

The department honors program is open to all undergraduate English majors who maintain a 3.5 grade point average in their English major courses and a 3.25 average overall. Determination of eligibility will be made at the beginning of the student's second semester of junior level work.

In addition to the core curriculum, the honors student should take at least four elective courses on the 400 level. 200 and 300-level creative writing courses may count as electives for students initially enrolled in the creative writing option, and English 300 will count as an elective for students initially enrolled in the teaching option. In addition, the student must take at least one English honors seminar, English 497, for three hours of credit, and write a senior honors research paper. If the student elects, the paper will count for six hours of credit toward the English major. The student may elect to write a paper worth only three hours of credit. In that case the student must take a second English honors seminar worth three hours of credit.

The senior honors paper will be an independent research project undertaken through mutual agreement between the honors student and a member of the continuing English faculty.

#### Minor

The minor in English is a minimum of 18 semester hours. Minors are available with several specializations, and the following are listed as examples only. Students interested in English as a minor are invited to confer with the director of undergraduate programs in English, or an adviser in the Department of English.

#### ENGLISH MINOR – TEACHING SPECIALIZATION

For students who wish to meet the minimum certification requirements for teaching English in the secondary schools, the following courses are required: English 209; 300; 390; 471 or 472; and two of the following: English 302a, 302b, 309, 445.

For the following minor specializations, these courses are recommended as part of the 18 hour minimum.

#### ENGLISH MINOR – PREPROFESSIONAL SPECIALIZATION

English 209; 300; 391; 445; 471 or 472.

#### ENGLISH MINOR – GENERAL WRITING OR CREATIVE WRITING SPECIALIZATION

Writing minors should take at least one course from English 290, 390; two courses from English 281, 282, 283; and two courses from English 381, 382, 383.

#### ENGLISH MINOR – WORLD LITERATURE SPECIALIZATION

English 209, 390; and four courses from 425, 438, 445, 455, 465. For further information, see catalog section titled Comparative Literature.

#### ENGLISH MINOR – OTHER SPECIALIZATIONS

Students wishing to arrange other specializations in English should consult the director of undergraduate programs in English or one of the departmental advisers.

#### Courses

**199-1 Special Topics and Projects.** Topics and projects, including laboratory work, to aid students in developing specialized writing skills. Prerequisite: consent of department.

**201-3 Introduction to Drama.** Students will read and discuss plays of different types and peri-



ods. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**202-3 Introduction to Poetry.** Students will read and discuss poems of different types and periods. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**209-3 Introduction to the Forms of Literature.** Poetry, drama, and fiction. Statement and illustration of the techniques of the three genres over the range of American and English literature. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**210-3 Introduction to Fiction.** Students will read and discuss a variety of American and European short stories and novels. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**225-3 Women in Literature.** (Same as Women's Studies 225.) Examines the ways in which women are portrayed in literature, especially in twentieth-century novels, drama, short fiction, and poetry written by women. Prerequisite: GE-D 117, 118, or 119; or GE-D 120.

**281-3 Creative Writing: Beginning Fiction.** Introduction to basic techniques of writing creative prose with emphasis on characterization, plot, and narrative devices. Study and application of various methods of short story writing. Exercises. Critiques. Prerequisite: GE-D 120 or 119 or consent of instructor.

**282-3 Creative Writing: Beginning Poetry.** Introduction to basic theories and techniques of poetry writing with emphasis on metrics, forms, and poetic stanzas. Study and application of each of these general aspects of writing poetry. Exercises. Critiques. Prerequisite: GE-D 120 or 119 or consent of instructor.

**283-3 Creative Writing: Beginning Drama.** Introduction to basic problems and techniques of dramatic presentation. Emphasis on producing works for the amateur market, with a secondary purpose of advising future teachers of possibilities of using plays, skits, etc., as teaching aids. Exercises in creating original dramatic material. Critiques. Prerequisite: GE-D 120 or 119 or consent of instructor.

**290-3 Intermediate Expository Writing.** Designed for any University student, to improve writing skills beyond freshman composition. Based on individual needs and areas of specialization. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**300-3 Introduction to Language Analysis.** Nature of language and linguistic inquiry. Dialectology, usage, and chief grammatical descriptions of present day American English. Required of teacher training candidates.

**302A-3 Literary History of England, Beowulf to 1800.** Social, historical, and intellectual backgrounds of English literature with selected readings from each period from Beowulf to 1800.

**302B-3 Literary History of England, 1800 to Present.** Social, historical, and intellectual backgrounds of English literature with selected readings from each period from 1800 to the present.

**309-3 A Literary History of the United States.** Social, historical, and intellectual backgrounds of American literature, with selected readings for each period. Elective Pass/Fail.

**325-3 Black American Writers.** Poetry, drama, and fiction by Black American writers. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**332-3 Folktales and Mythology.** A survey of non-classical mythology and folktales, emphasizing its mediaeval and modern aspects as well as the use of folklore in major literary works. Readings will cover Norse, Celtic, and Middle Eastern mythology, their use by English and American writers, such as Tennyson, Irving, and Hawthorne and the popular folk-ballad. Students are encouraged to explore other aspects of world folklore in their independent research papers.

**335-3 The Short Story.** Reading and discussion of short stories by American and European authors. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**365-3 Shakespeare.** Reading and discussion of the major plays. Prerequisite: GE-D 101 and GE-D 117; or GE-D 101 and GE-D 118; or GE-D 101 and GE-D 119; or GE-D 120; or equivalent.

**381-3 Creative Writing: Advanced Fiction.** Emphasis on the long short story and novella with exercises and study oriented to more sustained forms of prose than the short story. Theories and techniques of extended fictional forms treated. Critiques. Prerequisite: 281 or consent of instructor.

**382-3 Creative Writing: Advanced Poetry.** Concentration on modern forms and theories of poetry. Writing assignments and exercises in the application of various poetic techniques, primarily 20th century American. Critiques. Prerequisite: 282 or consent of instructor.

**383-3 Creative Writing: Advanced Drama.** Concentration on serious literary statements through drama, and on practical instruction in writing extended and concentrated dramatic forms. Presentation of various dramatic theories through the study of representative plays. Drama writing exercises and critiques. Prerequisite: 283 or consent of instructor.

**390-3 Advanced Composition.** Expository writing. Prerequisite: C average in GE-D 120; or C average in GE-D 101 and 117, 118, or 119; or equivalent. Open to English majors and minors or with consent of department.

**391-3 Precision in Reading and Writing.** To improve the student's ability to read and write with precision and clarity, depending on reading complex material (requiring no particular back-



ground for comprehension) and on writing precis of it. Prerequisite: grade of B in GE-D 117, 118, or 119; or C in GE-D 120; or C in English 290.

**393-3 to 9 (3 per topic) Special Topics in Literature and Language.** Topics vary and are announced in advance. Both students and faculty suggest ideas. May be repeated as the topic varies. Prerequisite: departmental approval.

**401-3 Modern English Grammars.** A review of modern approaches to grammatical analysis in English language (only), this course is specifically designed to meet needs of in-service or prospective teachers of composition and language arts, particularly at the secondary and college levels.

**403-3 History of the English Language.** A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern changes.

**404-3 Middle English Literature Excluding Chaucer.**

**405-3 Middle English Literature: Chaucer.**

**412-3 English Non-Dramatic Literature: The Renaissance.**

**413-3 English Non-Dramatic Literature: The Restoration and Earlier Eighteenth Century.**

**414-3 English Non-Dramatic Literature: The Later Eighteenth Century.**

**421-3 English Romantic Literature.**

**422-3 Victorian Poetry.** Victorian poets: Tennyson, Browning, Arnold, and other poets in England.

**423-3 Modern British Poetry.**

**425-3 Modern Continental Poetry.** Representative poems by major 20th century poets of France, Italy, Germany, Spain, Russia, and Greece.

**426-3 American Poetry to 1900.** Trends in American poetry to 1900 with a critical analysis of the achievement of the more important poets.

**427-3 American Poetry from 1900 to the Present.** The more important poets since 1900.

**436-3 to 9 (3 per topic) Major American Writers.** Significant writers of fiction and nonfictional prose from the Puritans to the 20th Century. May be repeated only if topic varies, and with consent of department.

**438-3 Intellectual Backgrounds of American Literature.** The relationship of basic ideas in America to American literature.

**445-3 Cultural Backgrounds of Western Literature.** A study of ancient Greek and Roman literature, Dante's *Divine Comedy*, and Goethe's *Faust*, as to literary type and historical influence on later Western writers.

**451-3 Eighteenth Century English Fiction.** Defoe through Jane Austen.

**452-3 Nineteenth Century English Fiction.** Victorian novel: 1830-1880.

**453-3 Modern British Fiction.**

**455-3 Modern Continental Fiction.** Selected major works of European authors such as Mann, Silone, Camus, Kafka, Malraux, Hesse.

**458-3 American Fiction to the Twentieth Century.** The novel in America from its beginnings to the early 20th Century.

**459-3 American Fiction of the 20th Century.** Trends and techniques in the American novel and short story since 1914.

**460-3 Elizabethan and Jacobean Drama.** Elizabethan drama excluding Shakespeare: such Elizabethan playwrights as Greene, Peele, Marlowe, Heywood, Dekker; and Jacobean drama: such Jacobean and Caroline playwrights as Jonson, Webster, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford, Shirley.

**462-3 English Restoration and 18th Century Drama.** After 1660, representative types of plays from Dryden to Sheridan.

**464-3 Modern British Drama.**

**465-3 Modern Continental Drama.** The continental drama of Europe since 1870; representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal.

**468-3 American Drama.** The rise of the theater in America, with readings of plays, chiefly modern.

**471-3 Shakespeare: The Early Plays, Histories, and Comedies.**

**472-3 Shakespeare: The Major Tragedies, Dark Comedies, and Romances.**

**473-3 Milton.** A reading of a selection of the minor poems, of *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, and the major treatises.

**481-3 Literature for the Adolescent.** Criteria for evaluation of literary materials for junior and senior high school, with emphasis on critical approaches in selection of literature.

**484-3 Non-Print Media and English.** Theory and application of film and other non-print media to the study and teaching of English. Especially emphasized is the relationship between print and non-print communications systems and verbal and non-verbal systems. Prerequisite: consent of instructor.

**485-3 Problems in Teaching Composition, Language, Literature and Reading in High School.**

**490-3 Expository Writing.** An advanced expository writing course designed to improve the student's ability to write clear and effective expository prose. The main work of the course will consist of the writing and revising of a set of essays that reflect a variety of rhetorical strategies. Required readings will provide models and subject matter for some of the assignments. Prerequisite: GE-D 101 and 117, 118, 119 or 120 or equivalent; English 390 or equivalent.



- 491-3 Technical Writing.** An all-University course designed to teach advanced academic and professional (non-fictional) writing skills. Prerequisite: GE-D 117, 118, or 119, or equivalent.
- 492-3 to 9 Creative Writing: Senior Writing Project.** The topic varies among the writing of poetry, drama, or prose. A directed written project will be submitted at the end of the semester in prose, poetry, or drama. A collection of short stories or poems, a novel or play of what instructors consider to be acceptable quality will fulfill the Senior Project requirement. An alternative to the Senior Project may be an internship in a publishing firm if appropriate arrangements can be made by the department. Prerequisite: consent of the instructor.
- 493-3 to 9 (3 per topic) Special Topics in Literature and Language.** Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies.
- 494-3 Literary Criticism Applied to Film.** The course will deal with the history and theories of literary criticism. Students will have the opportunity to apply concepts of literary criticism to a series of films which they will view. A \$10 screening fee is required.
- 495-3 Literary Criticism.** Includes both history of criticism and modern criticism. Open only to seniors and graduate students.
- 496-3 to 6 (3, 3) Topics in Women's Literature.** (Same as Women's Studies 454.) Syllabus, which may vary with instructor, identifies new areas of research on women authors and includes an examination of appropriate critical models that have emerged in feminist criticism.
- 497-3 to 9 (3 per topic) Senior Honors Seminar.** Topics vary yearly. May be repeated as the topic varies. Prerequisite: departmental approval and undergraduate status.
- 499-1 to 6 (1 to 3, 1 to 3) Readings in Literature and Language.** For English majors only. Prior written departmental approval required. May be repeated as the topic varies, up to the maximum of six semester hours.
- 501-3 Research in Composition.**
- 502-3 Introduction to Graduate Study and Teaching College Composition.**
- 506-3 to 12 Anglo-Saxon and Medieval Studies.**
- 510-3 to 12 Renaissance Studies.**
- 516-3 to 12 Restoration and 18th Century Studies.**
- 530-3 to 12 19th Century English Literature.**
- 533-3 to 12 Early American Literature.**
- 539-3 to 12 Modern American Literature.**
- 550-3 to 12 Modern British Literature.**
- 579-3 to 12 (3 per topic) Studies in Modern Literature.**
- 581-3 to 9 (3 per topic) Problems in Teaching English.**
- 593-3 to 12 Special Topics.**
- 595-1 to 9 Independent Readings.**
- 596-3 to 12 Language Studies.**
- 600-1 to 36 (1 to 16 per semester) Dissertation.**
- 601-1 to 12 per semester Continuing Research.**

## Environmental Design (Major [Graduate only], Courses)

### Courses

- 411-1 to 6 Workshop.** Current topics and problems facing professionals in the field of design. Discussion, reports, lectures, and other methods of analyzing and working on environmental design problems. Emphasis stated in announcement. Maximum of three hours per topic. Prerequisite: senior standing and consent of instructor.
- 412-1 to 3 Seminar.** Special topics and projects considered at stages of design, production, sale, or use. Individual preparations and presentations required. Prerequisite: senior standing or consent of instructor.
- 413-1 to 4 Readings.** Supervised study of selected, relevant literature in area of individual interest related to environmental design. Prerequisite: senior standing or consent of instructor.
- 414-1 to 6 Special Problems.** Directed independent work and study in areas determined by individual needs and interests. Maximum of three hours counted toward master's degree. Prerequisite: senior standing or consent of instructor.
- 500-3 Research Methods and Problem Solving.**
- 504-3 Systems in Environmental Design.**
- 508-3 Environmental Integration.**
- 510-3 to 6 Practicum.**
- 531-3 Spatial Concepts in Design I.**
- 532-4 Spatial Concepts in Design II.**
- 541-3 Application of Science and Technology to Design.**
- 551-3 Anticipatory Design.**
- 598-1 to 6 Project.**
- 599-1 to 6 Thesis.**
- 601-1 to 12 per semester Continuing Research.**

# Equine Studies

(SEE ANIMAL INDUSTRIES)

## Finance (Department, Major, Courses)

The financial implications of decisions in both business and government are daily becoming more complex. Within the firm, financial considerations permeate the concentrations of research, engineering, production, and marketing. Within governmental activities, sophisticated financial techniques are becoming increasingly important. The financial executive thus takes a key role in the successful management of both business and governmental operations.

The finance curriculum offers two areas of specialization to meet the varied interests of students: (1) financial management and (2) financial institutions. The financial management program provides the background for a career in the financial operations of business firms and public institutions. The financial institutions specialization is designed for those interested in the operations of financial intermediaries and financial markets. Certain courses may require the purchase of additional materials.

### Bachelor of Science Degree, College of Business and Administration

<i>General Education Requirements</i> . . . . .	45
<i>Professional Business Core (See page 81.)</i> . . . . .	40-43
<i>Requirements for Major in Finance</i> . . . . .	21
Finance 331, 361 . . . . .	6
Specialization (choose one) . . . . .	15
Financial Institutions	
Finance 341, 449	
Select three: 320, 432, 433, 462	
or	
Finance 320, 341	
Finance 432 or 433	
Select two: 321, 322, 323, 480	
Financial Management	
Finance 469	
Finance 480 or upper division accounting course	
Select three: 432, 433, 462, 463, 464	
<i>Electives</i> . . . . .	11-14
<i>Total</i> . . . . .	120

### Courses

- 280-3 Business Law I.** Legal problems arising from situations involving contracts and agency and business organizations. Not pass/fail for business majors.
- 300-3 Personal Finance.** An introduction to the problems of personal financial asset management, including income and expense budgeting. Emphasis also placed on consumer credit, insurance, investments, home ownership, and taxation. Will not count toward a major in finance. Prerequisite: junior standing.
- 310-3 Insurance.** Fundamentals of insurance and risk management including a study of selected insurance contracts and alternative methods of controlling risk exposures. Prerequisite: junior standing.
- 320-3 Real Estate.** Problems of real estate ownership, management, financing, and development. Prerequisite: junior standing.
- 321-3 Real Estate Finance.** A study of the instruments, techniques, and institutions of real es-



tate finance; sources of and methods for obtaining funds for real estate investments; mortgage risk analyses. Prerequisite: 320 or consent of instructor and junior standing.

**322-3 Real Estate Appraisal.** The techniques and art of real estate valuation using market comparison, cost, and income approaches. Includes appraisal principles, procedures, and applications. Prerequisite: 320 or consent of instructor and junior standing.

**323-3 Real Estate Law.** A survey of legal principles applicable to real property, including the following: conveyances, titles, land descriptions, rights and duties of ownership, and the law of real estate brokerage. Prerequisite: 320 or consent of instructor and junior standing.

**330-3 Introduction to Finance.** Study of issuance, distribution, and purchase of financial claims including the topics of financial management, financial markets, and financial investments. Prerequisite: Accounting 230, Economics 215, and junior standing.

**331-3 Investments.** Survey of the problems and procedures of investment management; types of investment risks; investment problems of the individual as well as the corporation. Prerequisite: 330.

**341-3 Financial Markets.** Operations of capital markets. Sources and uses of funds of financial institutions. Prerequisite: 330 or concurrent enrollment.

**350-3 Small Business Financing.** Financing problems involved in raising venture capital, debt type funds, expansion funds, and government sponsored funding. Budgeting, working capital management, and fixed asset planning are covered. Prerequisite: Accounting 230 and Economics 215 or consent of department; junior standing.

**361-3 Management of Business Finance.** The principal problems of managing the financial operations of an enterprise. Emphasis upon analysis and solutions of problems pertaining to policy decisions. Prerequisite: 330 and Management 208.

**370-3 The Legal and Social Environment of Business.** An examination of the legal, social, and political forces that influence business and businessmen. Particular attention to the role of law as an agency of social control in the modern business society. Prerequisite: junior standing.

**380-3 Business Law II.** Legal problems arising from situations involving sales, commercial paper, secured transactions, and property. Prerequisite: junior standing.

**432-3 Options and Futures Markets.** Study of modern concepts and issues in financial options and futures markets. Emphasis on risk management in financial institutions, and applications in corporate finance and funds management. Not for graduate credit. Prerequisite: 331 and 361 or concurrent enrollment.

**433-3 Portfolio Theory and Management.** Examination of modern concepts relating to management of security portfolios. Topics include security analysis, Markowitz Portfolio Theory, efficient market hypothesis, portfolio performance measurement, risk, and portfolio construction. Prerequisite: 331 and 361 or concurrent enrollment.

**449-3 Management of Financial Institutions.** Principal policies and problems which confront top management. Emphasis on liquidity, loans, investments, deposits, capital funds, financial statements, organization structure, operations, personnel, cost analysis, and public relations. Not for graduate credit. Prerequisite: 330 and 341.

**462-3 Working Capital Management.** Short-term budgeting and forecasting techniques used in business; alternative approaches to working capital management including consideration of certainty, risk and uncertainty; theory and applications of management of cash, marketable securities, accounts receivables, inventory, banking relationships, and short-term sources of funds. Prerequisite: 361 or concurrent enrollment.

**463-3 Forecasting and Capital Budgeting.** Long-term forecasting techniques used in business; alternative approaches to capital structure decisions, cost of capital measurement; and performance measurement for investment decisions including mergers and leasing; explicit consideration of certainty, risk, and uncertainty in investment analysis; theory and applications in private and public sectors. Prerequisite: 361 or concurrent enrollment.

**464-3 International Financial Management.** Financial behavior of multinational firms. Emphasis on the modification of conventional financial models to incorporate uniquely foreign variables. Prerequisite: 361 or concurrent enrollment.

**469-3 Managerial Financial Policy.** Development of financial strategies and policies based on an evaluation of alternative approaches. Emphasis upon application of financial concepts and techniques to real-life situations. Not for graduate credit. Prerequisite: 361.

**480-3 Problems in Labor Law.** Social, economic, and legal evaluations of recent labor problems, court decisions, and legislation. Concern is on long-run legislative impact on manpower planning, dispute settlement, and utilization of employment resources.

**491-1 to 6 Internship in Finance.** Designed to provide an opportunity to relate certain types of work experience to the student's academic program and objectives. Approved internship assignments with cooperating companies in the fields of finance are coordinated by the faculty member. Not repeatable for credit. Not for graduate credit. Prerequisite: consent of department chairperson and outstanding record in finance. Mandatory Pass/Fail.

**495-1 to 6 Readings in Finance.** Readings in classical and current writing on selected topics in various areas in the field of finance not available through regularly scheduled courses. Not for graduate credit. Prerequisite: consent of department chairperson and outstanding record in finance. Mandatory Pass/Fail.

## Fire Science Management

(SEE ADVANCED TECHNICAL STUDIES)

## Food and Nutrition (Major, Courses)

The food and nutrition program is a part of the Department of Animal Industries.

Students will be required to take field trips in those courses so designated with the expenses pro-rated for each student. Appropriate uniforms will be required of all students enrolling in those courses that involve preparation of food.

### Bachelor of Science Degree, School of Agriculture

#### FOOD AND NUTRITION MAJOR – DIETETICS SPECIALIZATION

These courses give a strong scientific education to those interested in becoming dietitians in hospitals, college dormitories, industrial plants, health clinics, laboratories, or public health and welfare organizations. They meet the academic requirements of the American Dietetics Association. Eligibility to write the registration examination to become a registered dietitian (RD) requires completion of academic and experiential requirements.

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Requirement for Major in Food and Nutrition with Specialization in Dietetics</i> .....	75
GE-A 115 .....	(3)
GE-B 104, 202, 211 .....	(9)
GE-D 107 .....	(3)
GE-D 118 or 119 .....	(2)
Computer Information Processing 109 .....	3
Curriculum, Instruction and Media 237 .....	3
Physiology 210 .....	5
Vocational Education Studies 321	
or Psychology 309 .....	2-3
Microbiology 301 .....	4
Food and Nutrition 215, 256, 320, 335, 360a, 361,	
363, 470, 471 .....	27
One of the options listed below .....	30-31
<i>Total</i> .....	120
General Dietetics Option	
Management 301 or 304 .....	3
Chemistry 140a, b or 222a, b, 334, 345, 346, 450 .....	(3) + 5-17
Two courses selected from Food and Nutrition 420,	
472, 480, 490 .....	6
Electives .....	4-17
<i>Total</i> .....	30-31
Clinical Dietetic Option	
Management 301 or 304 .....	3
Chemistry 222a, b, 344, 345, 346 .....	(3) + 13
Food and Nutrition 472 .....	3
Two courses selected from Food and Nutrition 356,	
420, 480, 490 .....	6



Physiology 300 or 301 .....	3-4
Electives .....	1-3
<i>Total</i> .....	30-31
Management Dietetics Option	
Management 304, 385 .....	6
Chemistry 140a, b or 222a, b, 344, 345, 346 .....	(3) + 13
Food and Nutrition 360b .....	3
Economics 310 .....	3
Accounting 210 or 220, 230 .....	3-6
Electives .....	0-10
<i>Total</i> .....	30-31
Community Dietetics Option	
Management 301 or 304 .....	3
Chemistry 140a, b or 222a, b, 344, 345, 346 .....	(3) + 13
Food and Nutrition 480 .....	3
Two courses selected from Food and Nutrition 420, 472, 490 .....	6
Electives .....	5-14
<i>Total</i> .....	30-31

FOOD AND NUTRITION MAJOR – FOOD AND LODGING SYSTEMS MANAGEMENT SPECIALIZATION

These courses prepare students for positions as food systems managers for restaurants, hotels, school food service, public and private lodging facilities, airlines, industrial feeding, resorts, institutions, hospitals, and clubs. They meet the requirements as set forth by industry, the Council of Hotel, Restaurant, and Institutional Education, and the National Restaurant Association. Through this program in the hospitality field, transfer students from community colleges also will be able to complete their baccalaureate degrees.

<sup>1</sup>The numbers in parentheses are counted as part of the 45-hour General Education requirements.

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Food and Nutrition with Specialization in Food and Lodging Systems Management</i> .....	58-60
GE-A 115 .....	(3)
GE-B 202 .....	(3)
Accounting 220, 230 .....	6
Management 304 .....	3
Animal Industries 210 .....	3
Chemistry 140a .....	(4)
Economics 214 or 215 .....	(3)
Computer Information Processing 109 or Computer Science 212 .....	3
Finance 280 .....	3
Food and Nutrition 215, 256, 335, 360a, b, 361, 363, 371, 372, 373, 406 or Microbiology 301 .....	34-36
Marketing 304 .....	3
Psychology 320 .....	3
<i>Electives</i> .....	15-17
Recommended electives: GE-E 236; Chemistry 140b; Curriculum, Instruction and Media 227, 237; Finance 350, Food and Nutrition 320, 420, 421, 470; Management 202, Microbiology 421	
<i>Total</i> .....	120

## FOOD AND NUTRITION MAJOR – FOOD AND NUTRITION SCIENCE SPECIALIZATION

These courses give a strong scientific education to those interested in preparing for graduate study in food, nutrition, or related discipline; for research in university, industrial, or governmental laboratories; or for educational and promotional work in industry or public health organizations.

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Food and Nutrition with Specialization in Food and Nutrition Science</i> .....	54-56
GE-A 115 .....	(3)
GE-B 202 .....	(3)
Chemistry 222a, b, 344, 345, 346, 347, 450 .....	(3) + 19-20
Food and Nutrition 215, 256, 320, 420, 421 .....	15
Mathematics 108 and 109 .....	(3) + 3
Microbiology 301 and 421 and 422 or 403 and 404 .....	9
Physiology 208, 209 or 210 .....	4-5
Psychology 211 .....	4
<i>Electives</i> .....	19-21
Recommended electives: Chemistry 451a,b; Curriculum, Instruction and Media 227, 237; Food and Nutrition 490; Health Education 490; Physiology 300, 410a,b, 420.	
<i>Total</i> .....	120

## Courses

See also Animal Industries for additional 400 and 500-level courses.

**156-3 Fundamentals of Foods.** An introduction to the basic principles and techniques of food preparation. A charge of \$15 will be made for laboratory.

**215-2 Introduction to Nutrition.** (Same as Animal Industries 215.) An up-to-date study of basic principles of nutrition including classification of nutrients (physical and chemical properties) and their uses in order to provide the student a working knowledge of nutrition in today's environment.

**247-3 (1, 1, 1) The School Lunch Program.** (a) Food purchasing; (b) quantity food production; and (c) nutrition practices in the school lunchroom.

**256-5 Science of Food.** Application of scientific principles including preparation, chemistry, functions, and interrelationships in ingredients and their effects on physical, chemical, and sensory characteristics of foods. Three lecture and two three-hour laboratories per week. A charge of \$10 will be made for laboratory. Prerequisite: Chemistry 140a or 222a.

**320-3 Nutrition.** Principles of nutrition in relation to intermediary metabolism and the role of vitamins and minerals. Prerequisite: 215, Chemistry 140 or equivalent.

**321-2 Food and Nutrition Demonstration.** Emphasis on principles of food and nutrition including food standards and demonstration techniques. Field trip. Prerequisite: 256.

**335-2 Meal Management.** The selection, purchase, preparation, and service of food with emphasis on time and money management. A charge of \$15 will be made for laboratory. Prerequisite: 256.

**356-3 Experimental Foods.** Experimental approach to the study of factors influencing the behavior of foods. Individual problems. A charge of \$10 will be made for laboratory. Prerequisite: 256.

**360-7 (4, 3) Quantity Food Production.** (a) Selection and use of institutional food service equipment including specifications, cost, and care; use of standardized formulas, techniques of quantity preparation, and service of food to large groups. Prerequisite: 256 or equivalent; (b) practical experiences in area food service units. Prerequisite: 256 or equivalent.

**361-3 Food Service Organization and Management.** Policies, budgets, supervision, and personnel in feeding large groups.

**363-2 Food Purchasing for Institutions.** Principles and methods of purchasing food in quantity.

**371-2 to 6 Field Experience.** Opportunity for supervised learning experiences in the student's major. Prerequisite: consent of instructor or chairperson.

**372-3 Food Systems in the Lodging Industry.** Principles and concepts of effective front office management in the lodging industry.

**373-2 Food and Beverage Controls.** Duties and responsibilities of the manager in restaurant, catering, hospitals, and club operations. The use of management methods in budgeting, forecast-



ing, controlling costs, and establishing operational policies in food and beverage cost control. Prerequisite: Accounting 210 or equivalent.

**406-2 Food Service Sanitation.** Emphasizes the importance of food service sanitation and its application in institutions, restaurants, and the hospitality industry. Upon successful completion of the course, students receive the Illinois State Sanitation Certificate. Prerequisite: consent of instructor.

**410-3 Educational Nutrition.** The objective of this course is to provide teachers in public and non-public elementary and secondary schools with the necessary background to incorporate food and nutrition into the educational curriculum.

**420-3 Recent Developments in Nutrition.** Critical study of current scientific literature in nutrition. Prerequisite: 320 or equivalent.

**421-2 Recent Trends in Food.** Critical study of current scientific literature in food. Prerequisite: 320 or equivalent.

**470-3 Nutrition Therapy I.** Physiological and biochemical changes in certain diseases and the appropriate nutrition therapy, Prerequisite: 320, Chemistry 140b or 352, and Physiology 210.

**471-3 Nutrition Therapy II.** In depth study of the application of nutrition to the management of disease states with emphasis on current treatment and complex metabolic abnormalities. Prerequisite: 470.

**472-1 to 6 Applied Nutrition Therapy.** Application of nutrition principles to the management of patients with altered physiological and biochemical states. Off-campus experience may be required. Prerequisite: 471 or concurrent enrollment in 471 and consent of instructor.

**480-3 Community Nutrition.** Offers a study of the objectives, implementation strategies, and evaluation methods of nutrition programs in communities' health programs. Integration of nutrition into the health care delivery system at local, state, and federal levels is included.

**490-3 Nutrition and Growth.** The study of human nutrition during each phase of the life cycle, prenatal through geriatric. Students elect at least two phases for in-depth study. A general review of basic nutrition is included. Prerequisite: consent of instructor and department chairperson.

**520-2 Advanced Nutrition.**

**580-1 to 18 (1 to 12 per semester) Nutrition Practicum in the Community.**

## Foreign Language and International Trade (Major)

The foreign language and international trade major, leading to the Bachelor of Arts degree in the College of Liberal Arts, will combine education in the liberal arts with preparation for careers in the international business community as well as in government service. It is designed to combine skill in a foreign language and a fundamental understanding of international commerce. This is accomplished by a curriculum of studies which has two cores—one in language and one in international trade and related subject matters. This cross-disciplinary program allows for choice of language as well as some options in electives so that different interests may be accommodated and individual goals may be realized. Prior to completion of the program, application and expansion of the knowledge and skills gained by the student through study is provided by an internship.

Students wishing to enter the program should consult the program director in the Department of Foreign Languages and Literatures in order to design an appropriate course of studies.

### Bachelor of Arts Degree, College of Liberal Arts

<i>General Education Requirements</i> . . . . .	45
Including GE-B 202 and 250; Economics 214 or 215 to substitute for GE-B 211; Mathematics 116 or 139 to substitute for GE-D 107; 4 hours of foreign language to substitute for GE-C	
<i>Supplementary College Requirements (See Page 94)</i> . . . . .	(7) + 7
<i>Requirements for Major in Foreign Language and International Trade</i> . . .	60-67
Courses in a Language (French, German, Japanese, or Spanish) . . . . .	(8) + 30-35
As prescribed by the program director; must include internship, Foreign Language 495	
Business Related Courses . . . . .	30-32
Accounting 220, 230 . . . . .	6

Computer Science 202 or 212 or Computer Information Processing 109 .....	3
Economics 214, 215, 329 .....	(3) + 6
Finance 330 .....	3
Management 208 and 304 or Political Science 441 .....	6
Marketing 304, 435 .....	6
Mathematics 116 or 139 .....	(3) + 0-2
<i>Electives</i> .....	1-8
Recommended: East Asia 370; Finance 464; Geography 362; History 370, 380a, 432, 433, 436, 471, 473, 474, 476; Marketing 336, 363, 438; Political Science 371, 458, 466, 485, 488; Religious Studies 334; Sociology 330	
<i>Total</i> .....	120

Foreign Languages and Literatures (Department, Majors, Courses)

Majors and minors are offered in classics (minor: classical civilization), French, German, Russian, and Spanish. Minors are also offered in Chinese, classical civilization, classical Greek, East Asian civilizations, Japanese, and Latin. A student majoring in a foreign language who has taken four years of that language in high school is expected to begin with 300-level courses and to take more upper level courses. Transfer students planning to major in a foreign language must complete a minimum of 12 semester hours of courses in that language at Southern Illinois University. No courses completed with a grade below C will be counted toward fulfillment of the requirements for a major. For modern foreign languages, both oral and written language competency must be demonstrated in separate examinations. Students should plan to take these exams no later than two semesters prior to graduation so there is time to make up possible deficiencies before graduation. For students preparing to teach in the public schools, the oral and written competency examinations must be passed before student teaching is begun. Every foreign language major must have a departmental advance registration form, signed by the appropriate adviser in the department, before proceeding to college advisement and registration.

Bachelor of Arts Degree, College of Liberal Arts

(WITHOUT SECONDARY SCHOOL TEACHING CERTIFICATE)

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements</i> (See page 94.) .....	(4) + 8-14
Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well. See the Spanish description for a major program which combines a Spanish major with a minor in secretarial and office specialties.	
<i>Requirements for Major in Foreign Language</i> .....	36 <sup>1</sup>
Except for classics, 100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level.	
<i>Electives</i> .....	25-31
<i>Total</i> .....	120

<sup>1</sup>See individual language listings for specific requirements.



**Bachelor of Arts Degree, College of Liberal Arts**

(WITH SECONDARY SCHOOL TEACHING CERTIFICATION)

<i>General Education Requirements</i> . . . . .	45
<i>Supplementary College Requirements</i> (See page 94.) . . . . .	(4) + 8-14
Though not required, a minor of at least 15 hours is recommended. This may be in another foreign language or in any other department within the College of Liberal Arts, but must be approved by the student's departmental adviser; a minor outside the college must be approved by the dean of the college as well.	
<i>Requirements for Major in Foreign Language</i> . . . . .	36 <sup>1</sup>
100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, and Spanish.	
<i>Professional Education Requirements</i> . . . . .	25
See Teacher Education Program, page 83.	
<i>Electives</i> . . . . .	0-6
<i>Total</i> . . . . .	120

<sup>1</sup>See individual language listings for specific requirements.

**Bachelor of Science Degree, College of Education**

For College of Education students majoring in a foreign language, the scheduling of those classes which apply to the major must be done with the appropriate adviser from the Department of Foreign Languages and Literatures.

<i>General Education Requirements</i> . . . . .	45 <sup>2</sup>
<i>Requirements for Major in Foreign Language</i> . . . . .	36 <sup>1</sup>
100-level courses will not count toward the major and at least 12 hours must be in courses on the 400-level. Foreign Languages 436 will be one of those courses required on the 400-level for majors in French, German, and Spanish.	
<i>Professional Education Requirements</i> . . . . .	25
See Teacher Education Program, page 83.	
<i>Electives</i> . . . . .	14
<i>Total</i> . . . . .	120

<sup>1</sup>See individual language listings for specific requirements.  
<sup>2</sup>See catalog section titled Curriculum, Instruction, and Media for specific certification requirements.

*Placement.* The student who has completed only one year of foreign language in high school normally begins with the first semester course. The student who has successfully completed two years of study in high school of any language currently taught in the department may begin with the second year level without having to take the placement proficiency examination. Those students who have successfully completed three or more years of high school language should consult the departmental adviser for that language.

**Minor**

A minor in a foreign language is constituted by 18 hours in courses above the first-year level. See individual language listings for specific requirements. State certification requirements, in terms of total semester hours of subject matter courses, may be met in part by counting first-year foreign language courses or by doing additional advanced work.

A minor in classical civilization or East Asian civilizations is constituted by 15 hours of courses to be selected in consultation with the appropriate sectional adviser.

**Secondary Concentration for Majors in the College of Business and Administration**

The Department of Foreign Languages and Literatures participates with the College of Business and Administration's major program in business and administration by offering a secondary concentration of 20-23 hours for those students who wish to formulate an academic program leading to a career specialization which combines business and a foreign language.

The secondary concentration varies according to the language chosen, but does not normally exceed 23 hours and involves course work from the 100 through the 400 levels. For specific course requirements in the respective languages, interested students should contact advisers in the Department of Foreign Languages and Literatures.

**GENERAL FOREIGN LANGUAGE COURSES**

**Courses**

**199-3 to 9 (3 per topic) Self Instructional Language.** A passive skills (listening and reading) self-instructional program in (a) Italian, (b) Korean, and (c) Portuguese which are not normally offered by the department. Unsupervised language study using language laboratory facilities and designated text materials. Credit granted upon successful completion of proficiency examination. Mandatory Pass/Fail.

**300-3 to 6 (3, 3) Masterpieces of World Literature.** Readings from and discussions of both Western and Eastern literatures, taken from ancient to modern times. Occasional guest lectures by faculty of the department, who speak on their areas of special interest. All readings and lectures in English.

**436-3 Methods in Teaching Foreign Languages.** Survey of general principles of second-language teaching, based upon insights of modern linguistics and learning-psychology. Followed by intensive practical work in classroom and language laboratory with teachers experienced in the student's specific language field. Required of prospective teachers of foreign languages in secondary schools. Prerequisite: concurrent or prior enrollment in 300-level course in French, German, Latin, Russian, or Spanish.

**475A-12 to 34 Full Year Abroad in Austria.** Two semesters at the Padagogische Akademie at Baden and at various institutions of higher learning in Vienna. All courses are taught in German. Students may obtain 30 to 34 semester hours of credit in German language, literature and civilization and with prior approval in elective areas of study including music, art, architecture, history, anthropology, political science, physical education, and sociology. Not for graduate credit. Prerequisite: 5 semesters of college German or equivalent with a 3.0 grade point average.

**495-3 to 6 Internship.** Provides structure within which previous studies can be given practical application normally in a foreign setting. Placement is arranged through the department, while supervision is provided at the internship site. Prerequisite: junior standing and prior approval by the department; approval requires attainment of an accepted level of language competency.

**506-1 to 4 Research Problems – French.**

**507-1 to 4 Research Problems – German.**

**508-1 to 4 Research Problems – Russian.**

**509-1 to 4 Research Problems – Spanish.**

**535-2 Critical Theory.**

**566-2 Bibliography and Research Techniques – French.**

**567-2 Bibliography and Research Techniques – German.**

**568-2 Bibliography and Research Techniques – Russian.**

**569-3 Bibliography and Research Techniques – Spanish.**

**CHINESE (Minor, Courses)**

**Minor**

Chinese courses above 100 level.....	18
200 level: 201a,b .....	8
300 level or 400 level.....	10



Courses

- 120-8 (4, 4) Elementary Chinese.** Standard (Mandarin) Chinese. The basic skills of listening, speaking, reading, and writing. No previous knowledge of Chinese required. Must be taken in a, b sequence.
- 201-8 (4, 4) Intermediate Chinese.** Standard (Mandarin) Chinese. Development of listening, speaking, reading, and writing on the intermediate level. Must be taken in a, b sequence. Prerequisite: 120b or equivalent.
- 305-2 to 4 (2, 2) Individualized Language Study.** Designed to improve language skills beyond the intermediate level. Tailored to the particular needs of students. Prerequisite: 201b or equivalent.
- 320-8 (4, 4) Advanced Chinese.** Standard (Mandarin) Chinese. Further development of listening, speaking, reading, and writing skills on the advanced level. Emphasis on developing proficiency in reading modern Chinese through cultural readings. Must be taken in a,b sequence. Prerequisite: 201b or equivalent.
- 410-3 The Linguistic Structure of Chinese.** (Same as Linguistics 411.) Phonology and syntax of Mandarin Chinese. Principal phonological features of major Chinese dialects. Special emphasis on the contrastive analysis between Mandarin Chinese and English. Theoretical implications of Chinese syntax for current linguistic theories. Prerequisite: one year of Chinese or introduction to linguistics.
- 435-3 Business Chinese.** An overview of China's business through reading in Chinese dealing with the major aspects of China's foreign trade ranging from broad principles and policies to concrete details of operation and procedure. Enhancement of conversational skills for business contexts. Prerequisite: 320 or equivalent.

CLASSICS (Major, Minors [Greek, Latin, Classical Civilization], Courses)

Bachelor of Arts Degree, College of Liberal Arts

Classics courses and courses from participating departments . . . . .	36
Original Greek and Latin courses, two years of one language or one year of each . . . . .	12-16
Electives: additional courses in Greek, Latin, or classical civilization (225, 270, 271, 310, 332, 405, 406, 496) <sup>1</sup> ; Classics 396; GE-C 230, 330; courses from participating departments (limited to 12 hours): Anthropology 304; Art 307; History 310, 313; Philosophy 304, 470, 471; Political Science 404 . . . . .	20-24

Minor in Greek

Greek courses above 100-level. . . . .	18
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Minor in Latin

Latin courses above 100-level (388 and 488 may not be counted); 320 recommended . . . . .	18
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Minor in Classical Civilization

Courses to be selected in consultation with adviser from Greek, Latin, or classical civilization (225, 270, 271, 310, 332, 405, 406, 496) <sup>1</sup> ; courses also recommended: GE-C 230, 330 and either Classics 100 or 101 . . . . .	15 <sup>2</sup>
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<sup>1</sup>Classical civilization includes all classics courses above the 100-level for which no knowledge of Greek or Latin is required.  
<sup>2</sup>18 hours are required for state certification.

Courses

- 100-2 Greek and Latin in English.** Vocabulary building through roots, prefixes, and suffixes. Recommended for students interested in the origin of English words. No knowledge of Greek or Latin is required.
- 101-3 Scientific Terminology: Greek and Latin Derivatives.** Analysis of common vocabulary and of basic scientific terminology into its component prefixes, roots, and suffixes. The course con-

centrates on methods for recognizing and understanding polysyllabic technical terms. No prerequisite required. No knowledge of Greek or Latin is required.

**130-8 (4, 4) Elementary Classical Greek.** The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of Ancient Greek in order to enable them to progress to the reading of the Greek classics and New Testament. Must be taken in a,b sequence. No previous knowledge of Greek required.

**133-8 (4, 4) Elementary Latin.** The object of this course is to give students a firm foundation in the grammar, vocabulary, and syntax of Latin in order to enable them to progress to the reading of the Latin classics. No previous knowledge of Latin required. Must be taken in a,b sequence.

**201-6 (3, 3) Intermediate Greek.** Reading and interpretation of selected works by authors such as Xenophon, Plato, Homer, and the New Testament writers. Must be taken in a,b sequence. Prerequisite: 130 or equivalent.

**202-6 (3, 3) Intermediate Latin.** Reading from authors such as Livy, Caesar, and Cicero. Must be taken in a,b sequence. Prerequisite: 133 or two years of high school Latin or equivalent.

**225-3 Athletics, Sports, and Games in the Ancient World.** The Olympics and other great games of ancient Greece; games and sporting events of ancient Rome; differences between ancient and modern attitudes about "sport" and sports. No knowledge of Greek or Latin is required.

**270-3 Greek Civilization.** An introduction to the life and culture of ancient Greece. Greek contributions to western civilization in literature, art, history, and philosophy. No knowledge of Greek or Latin is required.

**271-3 Roman Civilization.** An introduction to the life and culture of ancient Rome. Rome's function in assimilating, transforming, and passing on the Greek literary and intellectual achievements. Rome's own contributions in the political, social, and cultural spheres. No knowledge of Greek or Latin is required.

**310-3 Ancient Art and Archaeology.** Survey of the physical remains of ancient civilizations of the Aegean and Mediterranean areas. Special attention to the artistic and architectural achievements of the Greeks and Romans. Occasionally offered overseas. No knowledge of Greek or Latin is required.

**320-3 Latin Composition.** The object of this course is to understand and appreciate the structure and style of Latin through composition. Prerequisite: 202 or equivalent.

**332-3 Classical Drama.** Reading several tragedies and comedies of the Greeks and Romans both with a view to enjoying them as timeless works of art and with a view to understanding how they grew out of the societies of classical Greece and Rome. No knowledge of Greek or Latin is required.

**380-2 to 4 Greek Prose Authors in Greek.** Reading of Greek prose. Selections from the historians (Herodotus, Thucydides), orators (Lysias, Demosthenes, et al.) philosophers (Plato, Aristotle), or epistles of the New Testament. Prerequisite: 201 or equivalent.

**381-3 Homeric Epic in Greek.** Reading and interpretation of selections from the *Iliad* or the *Odyssey*. Homeric grammar and metrics, epic diction, the conventions of oral poetry. Prerequisite: 201 or equivalent.

**382-3 Greek Drama in Greek.** Reading and interpretation of selections from the works of the classical Greek dramatists: Aeschylus, Sophocles, Euripides, and Aristophanes. Stage conventions of the Attic theater. Prerequisite: 201 or equivalent.

**383-3 Early Greek Lyric in Greek.** Reading and interpretation of poets of the Archaic Age such as Alcaeus, Sappho, and Pindar. Socio-political background, dialects, meters. Prerequisite: 201 or equivalent.

**384-3 Roman Philosophy in Latin.** Selections from Cicero, Lucretius, and Seneca the Younger. Recommended for students with double majors in philosophy and classics. Prerequisite: 202 or equivalent.

**385-3 Medieval Latin.** Selected readings from Latin authors of the Middle Ages. Prerequisite: 202b or equivalent.

**386-3 Roman Historians in Latin.** Selections from Caesar, Sallust, Livy, Tacitus, and Suetonius. Recommended for students with double majors in history and classics. Prerequisite: 202 or equivalent.

**387-3 Vergil in Latin.** Selections from Vergil's major works, the *Aeneid*, *Eclogues*, etc. Prerequisite: 202 or equivalent.

**388-3 Latin as a Research Tool.** Intensive study of Latin as basis for development of reading knowledge. Covers grammar and vocabulary portion of first-year sequence in basic skills. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with course instructor.

**389-3 Myth, Fable, and Story in Latin.** Selections from works such as the *Metamorphoses* of Ovid, the *Fables* of Phaedrus, and *Satyricon* of Petronius. Prerequisite: 202 or equivalent.

**390-3 Roman Comedy in Latin.** Reading and interpretation of selections from play(s) by Plautus and Terence. Prerequisite: 202 or equivalent.

**391-3 Lyric and Satire in Latin.** Reading and interpretation of works by poets such as Catullus, Horace, Juvenal, and Persius. Study of either the lyric or satiric genre. Prerequisite: 202 or equivalent.

**396-3 Honors in Classics.** Readings of classical literature, in Greek or Latin or English translation, for junior or senior majors. The course requires preparation of an honors paper or comparable project, and satisfies one of the requirements for graduation with honors in classics. Prerequisite: 3.75 grade average in classics courses and consent of classics faculty.



**405-2 Greek Literature in Translation.** (Same as Women’s Studies 463.) Reading and analysis of selected classical Greek author(s), genre(s), theme(s), such as the role of woman, the social life of the ancient Greeks, etc. Students taking the course for graduate credit will do a critical study of one aspect. No knowledge of Greek or Latin is required.

**406-2 Latin Literature in Translation.** Reading and analysis of selected Roman author(s), genre(s), theme(s). Students taking the course for graduate credit will do a critical study of one aspect. No knowledge of Greek or Latin is required.

**415-1 to 9 (1 to 3 per topic) Readings from Greek Authors in Greek.** Reading and interpretation of works of Greek literature at an advanced level. Prerequisite: two semesters of 300-level Greek or consent of instructor.

**416-1 to 9 (1 to 3 per topic) Readings from Latin Authors in Latin.** Reading and interpretation of works of Latin literature at an advanced level. Prerequisite: two semesters of 300-level Latin or consent of instructor.

**488-3 Advanced Latin as a Research Tool.** Concentrated and individualized training in the recognition and interpretation of basic and complex grammatical structures and in the systematic acquisition of the principles of word formation for vocabulary expansion. Techniques for intensive and extensive readings and for translation of unedited texts in the student’s own field of study. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with course instructor. With consent of student’s own department, and with a grade of *B* or *A*, satisfies graduate program requirements for foreign languages as research tool. Prerequisite: 388 or one year of Latin or equivalent.

**496-2 to 8 (2 to 4, 2 to 4) Independent Study in Classics Program.** (Same as Anthropology 376, History 396, Philosophy 496, Religious Studies 496.) Normally taken in course of junior and senior years to a total of at least four hours under a professor participating in classics program (anthropology, classics, history, philosophy, or religious studies). At end of advanced level work, student will submit a research paper. Not for graduate credit. No knowledge of Greek or Latin is required. Prerequisite: consent of instructor and classics section head.

EAST ASIA (Courses)

**300-3 Masterpieces of Oriental Literatures.** Lectures and collateral readings of representative oriental literary works in English translation with special attention to literary forms and thought from ancient to contemporary China and Japan. No knowledge of an oriental language required.

**370-1 to 6 (1 to 3 per topic) Topics in East Asian Cultural Traditions.** Selected topics in East Asian cultural traditions. May be repeated to a total of six hours with the consent of the department. No prerequisite. Taught in English.

EAST ASIAN CIVILIZATIONS (Minor)  
Minor

Courses in Chinese and Japanese selected in consultation with adviser . . . . 15<sup>1</sup>

<sup>1</sup>18 hours is required for State certification.

FRENCH (Major, Minor, Courses)  
Bachelor of Arts Degree, College of Liberal Arts

French courses above 100 level. . . . .	36
200 level: 201a,b (220 recommended; does not usually count toward major or minor). . . . .	8
300 level: 320, plus any combination of 300 level courses . . . . .	14
400 level: any combination of 400 level courses. . . . .	14
(At least one literature course must be taken at either the 300 or the 400 level.)	

Bachelor of Science Degree, College of Education, or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

French courses above 100 level. . . . .	36
200 level: 201 a,b (220 recommended; does not usually count toward major or minor) . . . . .	8 <sup>1</sup>
300 level: 320, plus any combination of 300 level courses . . . . .	14
400 level: Foreign Languages 436, plus any combination of 400	

level courses . . . . .	14
(At least one literature course must be taken at either the 300 or the 400 level.)	

## Minor

French courses above 100 level . . . . .	18
200 level: 201a,b . . . . .	8 <sup>1</sup>
300 level: 320, plus any combination of 300 level courses . . . . .	10

<sup>1</sup>With the approval of the French section, one semester of 220 may be counted toward the major or minor, in which case the 400-level requirements would be reduced to 12 hours for the major and the 300-level course requirements would be reduced to 8 hours for a minor.

## Courses

**123-8 (4, 4) Elementary French.** The basic skills of listening, speaking, reading, and writing. No previous knowledge of French is required. Must be taken in a,b sequence.

**124-2 Elementary French Conversation.** Conversation skills for beginners. Special emphasis on tourist vocabulary. Prerequisite: concurrent enrollment in 123B or consent of instructor.

**190-5 Review of Elementary French.** A review course on first year level for students who have had two or more years of high school French or equivalent.

**201-8 (4, 4) Intermediate French.** Grammar review, translation, oral practice, written composition, and development of reading skills. Reading of material on contemporary France and selections from French literature. Prerequisite: 123, 190, or two years of high school French, or equivalent.

**220-2 to 4 (2, 2) Intermediate French Conversation.** Development of oral skills on the intermediate level. Not usually accepted toward major requirement. Prerequisite: 123b or 190 or equivalent.

**300-3 Image of Women in French Literature.** (Same as Womens Studies 352.) Female characters as they are represented in French literature through the centuries; the development of a psychological and sociological point of view of women through the examination of women's roles in French literature. Conducted in English. Counted toward major only with consent of adviser.

**310-4 Development of French Literature from the Middle Ages Through the Eighteenth Century.** Major literary movements and authors as exemplified in representative works.

**311-3 Modern French Literature.** The themes, structures, and language of some major works of poets, novelists, and playwrights from the early Romantics through the Existentialists and Robbe-Grillet.

**320-4 Advanced Language Skills.** A review of grammar and syntax with extensive practice in translation and composition. Reading of French texts as basis for discussion and papers. Prerequisite: 201b or equivalent.

**321-3 Advanced Conversation.** Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms emphasized through classroom and language laboratory work. Highly recommended for those students with a major in French. Prerequisite: 201b.

**330-3 Introduction to Literary Analysis.** Examination of the basic elements of literary expression; practice of rudimentary *explications de textes*. Selections for study are taken from important works of French literature and analyses are directed toward developing the students' artistic sensibilities as well as improving their analytical skills.

**335-3 Business French.** An overview of cultural, economic, and commercial France. Study through readings and discussions of the following topics: government, agriculture, industry, and commerce; Common Market and foreign trade, financial institutions and taxation, social classes, and the world of work. France as a society of consumption. Translations and some commercial correspondence. Prerequisite: 320 or equivalent.

**350-2 French Phonetics.** Introduction to French phonemics and phonetics involving production of French sounds and English interference. Emphasis on corrective pronunciation.

**370-3 Modern France.** The main philosophical, political, and artistic trends within the nineteenth and twentieth centuries which have contributed to the formation of present day France. Prerequisite: 320 or 321.

**375-1 to 6 Travel-Study in France.** Travel-Study project, planned under supervision of French faculty and carried out in France. Prerequisite: 201b, and consent of faculty.

**388-3 French as a Research Tool.** Intensive study of French as basis for development of reading knowledge. Covers grammar and vocabulary portion of first-year sequence in basic skills. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with course instructor.

**390-1 to 6 Independent Study in French.** Individual exploration of some question, author, or theme of significance within the field of French literature, language, or culture. Prerequisite: consent of instructor.

**410-3 Individualized Language Study.** Treatment of problems concerning grammar, idioms, vocabulary, and other language skills in units tailored to the particular needs of the individual



advanced level students enrolled in the course. Exercises in writing, understanding, and speaking will be offered with emphasis placed on the active use of the language which the student may need in present or future activities or careers.

**411-3 Linguistics Structure of French.** (Same as Linguistics 413.) Study of the phonology, morphology, and syntax of modern spoken and written French, stressing interference areas for English speakers in learning French. Prerequisite: 320 and 321 or equivalent.

**412-4 History of the French Language.** A survey of the phonological and morphological changes from Latin through Vulgar Latin and Old French to Modern French; study of an original Old French text, such as the *Chanson de Roland* or a romance of Chretien de Troyes. Knowledge of Latin not required.

**414-3 Translation Techniques.** Practice in oral translation – simultaneous and subsequent; written translation practice, from and into French, of materials from sources varying from technical, commercial, political, to general interest. Advanced grammar and syntax review as they relate to translation, with practice through exercises and translation. Prerequisite: 320 or equivalent.

**415-3 Literary Stylistics.** A study of the aesthetics and theory of French Literary expression. Disciplined stylistic analyses of excerpts from representative works of great French authors. Appreciation of distinctive qualities of each writer's genius. Consideration is given to various stylistic methods.

**419-3 Romance Philology.** (Same as Spanish 419.) Historical and comparative study of the major Romance languages: their phonology, morphology, and syntax.

**420-3 Medieval and Renaissance Literature.** Study of the origins of French literature emphasizing the *Chanson de Roland*, *Tristan*, other courtly romances, and the lyric poetry of Villon, culminating with an examination of the development of the humanistic ideas and ideals of the French Renaissance.

**430-4 Baroque and Classicism.** An in-depth examination of artistic and social writings of baroque and classical literary figures such as Corneille, Racine, Moliere, La Fontaine, Descartes, Pascal, Mme de LaFayette, La Bruyere, and La Rochefoucauld. Discussion, reports, papers.

**435-3 Business French II.** Detailed treatment of postal facilities and services, types of banks and their operations, transport of goods, import-export, bills of exchange, billing and shipping, insurance, accounting, and the stock market. These topics will be the subject of translations and of commercial correspondence. Prerequisite: 320 or equivalent, may be taken independently of 335.

**440-3 Literature of the Enlightenment.** Study and discussion of the novel, theater, and philosophic writing of 18th century France as literature and as expressions of the Enlightenment. Major attention given to Montesquieu, Voltaire, Diderot, and Rousseau.

**450-4 Literary Movements of the 19th Century.** Romanticism, Realism, and Naturalism in the novel and theater followed by an examination of the reaction to these movements and of the influence of symbolism.

**460-4 Studies in Literature of the 20th Century.** Examination of the major themes, forms, techniques, and style of novelists from Gide and Proust to Robbe-Grillet and dramatists from Giraudoux to Ionesco and Beckett.

**470-3 Backgrounds of French Civilization.** A study of the events, figures, and movements in France which have influenced its culture and civilization.

**475-3 to 6 Travel-Study in France.** Travel-study project, planned under supervision of French faculty and carried out in France. Amount of credit depending on scope of study. Prerequisite: 320 or equivalent.

**476-3 to 6 (3, 3) French Civilization Outside of France.** Encompasses a number of individual courses, each of which focuses on one of the many areas of the world in which France has played a significant role. Manifestations of French culture and civilization, past and present, are studied and evaluated within the framework of an evolving local and global historic context.

**488-3 Advanced French as a Research Tool.** Concentrated and individualized training in the recognition and interpretation of basic and complex grammatical structures and in the systematic acquisition of the principles of word formation for vocabulary expansion. Techniques for intensive and extensive readings and for translation of unedited texts in the student's own field of study. Intended for graduate students. With consent of student's department, and with a grade of B or A, satisfies graduate program requirement for foreign languages as research tool. Prerequisite: 388 or one year of French, or equivalent.

**490-1 to 6 Advanced Independent Study in French.** Individual exploration of some question, author, or theme of significance within the field of French literature, language or culture. Prerequisite: 320, 321 and consent of instructor.

**501-2 to 6 Studies on a Selected Topic or Author.**

**510-3 Masterpieces of French Literature.**

**520-1 to 3 Literature of the Middle Ages and Renaissance.**

**525-3 Advanced Language Skills.**

**536-1 Teaching French at the College Level.**

**539-1 to 3 Literature of the 17th Century.**

**540-1 to 3 Literature of the 18th Century.**

**550-1 to 3 Literature of the 19th Century.**

**560-1 to 3 Literature of the 20th Century.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

**GERMAN (Major, Minor, Courses)**

At least one course in the history of Germany or Central Europe is recommended for all students majoring in German. Credit must be earned in at least one regularly scheduled 400-level course taken on the Southern Illinois University campus.

**Bachelor of Arts Degree, College of Liberal Arts**

Courses above 100 level.....	36
200 level: 201a,b (201c recommended) .....	8-11
300 level: 320-6, plus any combination of 300-level courses .....	9-12
400 level: Any combination of 400 level courses .....	12
German electives (300 or 400 level).....	4
(At least one literature course must be taken at either the 300 or the 400 level.)	

**Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)**

Courses above 100 level.....	36
200 level: 201 a,b (201c recommended).....	8-11
300 level: 320-6, plus any combination of 300-level courses .....	9-12
400 level: Foreign Languages 436, plus any combination of 400 level courses.....	12
German electives (300 or 400 level) .....	4
(At least one literature course must be taken at either the 300 or the 400 level.)	

**Minor**

Courses above 100 level.....	18
200 level: 201a,b (201c recommended) .....	8-11
300 level: 320a,b .....	6
German electives (300 or 400 level including at least one regularly scheduled course).....	1-4

**Courses**

**126-8 (4, 4) Elementary German.** The course emphasizes German culture as it is expressed in the language. It concentrates on the four language skills of understanding, speaking, reading, and writing. No previous knowledge of German required. Must be taken in a,b sequence. Purchase of a workbook is required.

**127-2 (1, 1) Elementary German Conversation.** Conversation skills for beginners making use of modern media. No previous knowledge of German required. Must be taken in a,b sequence or as companion course to 126a or b or with consent of instructor.

**201-8 (4, 4) Intermediate German.** Intensification of the four basic language skills. Study of the culture and everyday living situations in the German-speaking countries. Must be taken in a,b sequence. Prerequisite: 126b or equivalent.

**201C-6 (3, 3) German Language Workshop.** This intensive (15 days), total-immersion (exclusively in German) program combines formal classwork with informal seminars, group activities (folk singing, skits, play readings, films, talent shows, etc.) and individual assignments (daily compositions, diaries). May be repeated once but only three hours will count toward major or minor. Prerequisite: 201b or consent of instructor.

**202-2 (1, 1) Intermediate German Conversation.** Designed to improve the student's speaking ability through use of modern media. Must be taken in a,b sequence or as companion course to 201a or b or with consent of instructor. Prerequisite: 126b or equivalent.

**230-3 Nordic Mythology.** An introduction to the study of the mythology and culture of the Germanic, and especially the Scandinavian peoples during the time of the Vikings. Emphasis on the Poetic Edda and Prose Edda; also historical and archaeological material. All readings in translation.



- 300-3 German Literature in Translation.** Readings of German authors of particular interest to American students, such as Hesse, Kafka, Brecht, and Mann. May count toward German major only with consent of adviser.
- 320-6 (3, 3) Advanced Composition and Conversation.** Devoted to increasing the student's command of German. Intensive practice in oral and written composition. Beginning with rather controlled subject matter and progressing to a wider choice of topics. Conducted primarily in German. To be taken in sequence. Required for majors. Prerequisite: 201b or equivalent.
- 321-2 (1, 1) Small Group Conversation.** Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms through active participation in small-group informal conversation. Guests are encouraged to attend. Prerequisite: 201b or equivalent. Mandatory Pass/Fail.
- 330-3 Introduction to German Literature.** Survey of masterpieces of German literature including works from various genres and from the major periods of German literary history. Student projects will include demonstration of various techniques of literary criticism. Course is taught primarily in German. Prerequisite: 201b or equivalent.
- 331-3 Faust, Part I and II.** Study of both parts of Goethe's *Faust* as a single poetic drama. Close reading of some passages for qualities of literary form and other passages for statements about the human condition in western civilization. Taught in English, readings in bilingual edition. May count toward German major only with consent of adviser.
- 370-3 Contemporary Germany.** Study of life in Germany since World War II including the customs and habits, thoughts and beliefs, as well as the broad complex of traditions basic to everyday life. Readings are in English and include literary and journalistic materials as well as written and filmed documentaries. No prerequisite. May count toward German major only with consent of instructor. Offered alternate years only.
- 380-3 Modern German Prose.** Introduction to outstanding German prose literature of the 19th and 20th centuries. Attention to historical and social backgrounds. Extensive readings supplemented by lectures and discussions. Conducted in German. Prerequisite: 201b or equivalent.
- 388-3 German as a Research Tool.** Intensive study of German as basis for development of reading knowledge. Covers grammar and vocabulary portion of first-year sequence in basic skills. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with the course instructor.
- 390-1 to 3 Directed Language Learning Activity.** Special projects such as translation practicum, German play production, German newsletter, instructional assistance, special presentations, or internship in a business firm in Germany. May count as the fifth semester required for Foreign Languages 475a. Prerequisite: consent of instructor.
- 401-3 Early German Literature.** Survey of medieval culture and literature. Reading of selections and discussion of major works of the Middle Ages in their esthetic and historical contexts. Conducted in German. Offered in alternate years only. Prerequisite: 330 or 380.
- 412-3 Linguistic Structure of Modern German.** The descriptive study of phonology, grammatical structure, and vocabulary of modern German with consideration of its structural differences from English and application to teaching. Appropriate for students with at least two years of German. Conducted in English.
- 413-3 History of the German Language.** Development of German from its Indo-European origin to the present in political and cultural context. The main linguistic aspects dealt with are lexical and semantic changes. Appropriate for students with at least two years of German. Conducted in English.
- 416-3 Individualized Language Study.** Designed to improve language skills beyond the level of 320. Treatment of problems concerning grammar, idioms, vocabulary, and other language skills tailored to the particular needs of advanced students. Emphasis is placed on the active use of the language which the student may need in present or future activities or careers. Prerequisite: 320b or equivalent.
- 435-3 Business German.** An overview of West German business, presented through lectures, readings, and discussions. Course work with textbook and supplementary materials will focus on the major aspects of German business. Exercises will include vocabulary building, listening and reading comprehension, oral and written summarization, role playing in typical situations, mock telephone conversations, and business correspondence. Prerequisite: 320 or consent of instructor.
- 445-3 Age of Goethe.** Intensive and extensive study of the authors, works, and movements of the period spanned by Goethe's life (1749-1832). Lectures, reports. Conducted in German. Prerequisite: 330 or consent of instructor.
- 460-3 East and West of the Wall.** Literature of the two Germanies. Course will trace the beginnings and the establishment of the two German literatures after World War II. Conducted in German. Prerequisite: 330 or 380.
- 465-3 German Theater Today.** Plays performed in German-speaking countries at the present. The role of the theater in German culture. Conducted in German. Prerequisite: 330 or equivalent.
- 485-2 German Lyric Poetry.** Development of German lyric poetry from Klopstock and Burger to the present. Conducted in German. Prerequisite: 330 or equivalent.
- 488-3 Advanced German as a Research Tool.** Concentrated and individualized training in the recognition and interpretation of basic and complex grammatical structures and in the systematic

acquisition of the principles of word formation for vocabulary expansion. Techniques for intensive and extensive readings and for translation of unedited texts in the student's own field of study. Intended for graduate students. With consent of student's department, and with a grade of *B* or *A*, satisfies graduate program requirement for foreign languages as research tool. Prerequisite: 388 or one year of German or equivalent.

**490-1 to 6 (1 to 3, 1 to 3) Independent Study in German.** Project-study under supervision of German faculty. Amount of credit depends on scope of study. May be repeated as the topic varies, up to the maximum of six semester hours. Prerequisite: senior or graduate standing and approval of supervising instructor.

**493-3 to 9 (3 per topic) Seminars in Special Topics in Literature and Language.** Topics vary and are announced in advance; both students and faculty suggest ideas. May be repeated as the topic varies. Primarily for undergraduates. Prerequisite: consent of instructor.

**501-2 to 4 (2, 2) Seminar in Literature, Culture, or Folklore.**

**502-2 to 4 (2, 2) Seminar in Germanic Linguistics.**

**510-3 Middle High German.**

**512-2 Historical Germanic Dialects.**

**536-1 Teaching German at the College Level.**

**560-3 German Literature at the Turn of the 20th Century.**

**561-3 Modern German Novel.**

**586-3 Das Komische.**

**590-3 to 9 (3 per topic) Independent Study on Special Topics in Literature and Language.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

GREEK (Minor, Courses)

(SEE CLASSICS)

JAPANESE (Minor, Courses)

Minor

Japanese courses above 100 level.....	18
200 level: 201a,b .....	8
300 level or 400 level.....	10

Courses

**131-8 (4, 4) Elementary Japanese.** Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Japanese is required. Must be taken in a,b sequence.

**201-8 (4, 4) Intermediate Japanese.** Development of listening, speaking, reading, and writing skills on the intermediate level. Must be taken in a,b sequence. Prerequisite: 131b or equivalent.

**305-2 to 4 (2, 2) Individualized Language Study.** Designed to improve language skill beyond the intermediate level. Tailored to the particular needs of students. Prerequisite: 201b or equivalent.

**320-8 (4, 4) Advanced Japanese.** Further development of listening, speaking, reading, and writing skills on the advanced level. Emphasis on developing proficiency in reading modern Japanese through cultural readings. Must be taken in a,b sequence. Prerequisite: 201b or equivalent.

**410-3 The Linguistic Structure of Japanese.** (Same as Linguistics 412.) Phonology and syntax of the Standard Japanese. Special emphasis on the contrastive analysis between Japanese and English. Typological similarities and lexical borrowings between Chinese and Japanese. Prerequisite: one year of Japanese or introduction to linguistics.

**435-3 Business Japanese.** An introduction to the language and culture of the Japanese business world and to the structure of the Japanese business economy. The emphasis will be on learning appropriate levels of formality and politeness in oral communication and on achieving competency in the specialized language of business. Prerequisite: 320 or equivalent.

LATIN (Minor, Courses)

(SEE CLASSICS)

PORTUGUESE (Courses)

**175-5 First-Year Portuguese.** First year Portuguese in one semester. The basic skills of listening, speaking, reading, and writing. Not open to native Portuguese speakers without permission of Spanish section.



RUSSIAN (Major, Minor, Courses)

Bachelor of Arts Degree, College of Liberal Arts

Russian courses above 100 level	36
200 level: 201a,b	8
300 level: Any combination of 300 level courses	12
400 level: Any combination of 400 level courses including at least one literature course	12
Russian electives (300 or 400 level)	4

Minor

Russian courses above 100 level	18
200 level: 201a,b	8
300 level: Any combination of 300 or some 400 level courses	10

Courses

**136-8 (4, 4) Elementary Russian.** Emphasis on basic skills of listening, speaking, reading, and writing. No previous knowledge of Russian required. Must be taken in a,b sequence.

**201-8 (4, 4) Intermediate Russian.** Continuation of the language structure with practice in oral and written Russian. Must be taken in a,b sequence. Prerequisite: 136 or two years of high school Russian or equivalent.

**220-4 (2, 2) Intermediate Russian Conversation.** Practice of oral skills on the intermediate level. May be taken as companion course to 201a,b or with consent of instructor. Prerequisite: 136b or equivalent.

**305-4 Advanced Conversation and Composition.** Improvement of self-expression, oral and written comprehension, free composition and conversation; readings based on the history of Russia, as well as readings of magazine and newspaper articles. Prerequisite: 201 or equivalent.

**306-3 Intermediate Readings in Russian.** Designed to improve skills in reading selections from Russian prose. Prerequisite: 201 or equivalent.

**320-3 Advanced Language Skills.** A review of fine points of grammar and polishing of student's syntax. Prerequisite: 201 or equivalent.

**330-4 Introduction to Russian Literature.** Reading and analysis of the texts selected from Russian literature.

**350-3 Russian Phonetics.** Analysis of the sounds of Russian and their manner of production; intonation and stress; levels of speech, oral practice. Prerequisite: 201b.

**375-3 to 6 Travel Study in USSR.** Supervised travel-study program in the USSR. Prerequisite: 201 or equivalent.

**388-3 Russian as a Research Tool.** Intensive study of Russian as basis for development of reading knowledge. Covers grammar and vocabulary portion of first-year sequence in basic skills. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with course instructor.

**411-3 Russian Stylistics.** Writing styles in Russian and its application to the development of skill in written expression.

**415-3 Russian Linguistic Structure.** Structural analysis of present-day Russian with special attention to morphology and syntax.

**430-4 Business Russian.** A study of the style of commercial language and its application to the development of skill in business correspondence, such as: inquiries, offers, orders, contracts, agreements, as well as documents concerning transport, insurance, and customs. Prerequisite: 201 or equivalent.

**465-3 Soviet Russian Literature.** Major fiction writers and literary trends since 1917. Lectures, readings, and reports.

**470-3 Soviet Civilization.** Soviet culture and civilization is studied primarily through literary works, journalistic materials, and excerpts from non-literary works as general background reading. Lectures are illustrated with maps, slides, films and art works. Taught in English. Readings are in English and in bilingual edition. No prerequisite: May count toward Russian major with consent of graduate adviser.

**475-2 to 3 Travel-Study in USSR.** Specialized course comprising part of the travel-study program in the Union of Soviet Socialistic Republics. Prerequisite: 201 or equivalent.

**480-4 Russian Realism.** Authors in 19th century Russian literature. Special attention to stylistic devices. Lectures, readings, and individual class reports.

**485-3 Russian Poetry.** A study of literary trends and representative works of Russian poets.

**488-3 Advanced Russian as a Research Tool.** Concentrated and individualized training in the

recognition and interpretation of basic and complex grammatical structures and in the systematic acquisition of the principles of word formation for vocabulary expansion. Techniques for intensive and extensive readings and for translation of unedited texts in the student's own field of study. Intended for graduate students. With consent of student's department, and with a grade of *B* or *A*, satisfies graduate program requirement for foreign languages as a research tool. Prerequisite: 388 or one year of Russian or equivalent.

**490-1 to 3 Independent Study.** Directed independent study in a selected area. Prerequisite: consent of the Russian section head.

**501-2 Seminar on a Selected Russian Author.**

**502-2 Seminar in Contemporary Russian Literature.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## SPANISH (Major, Minor, Courses)

### Bachelor of Arts Degree, College of Liberal Arts

Spanish courses above 100 level.....	36
200 level: 201a,b or 275.....	5-6
300 and 400 levels: 306, 320, and 415, plus any combination of 300 or 400 level courses which includes a literature course and at least nine additional 400 level hours.....	26-27
Spanish electives (only one semester of 220 may be counted toward the major).....	4

### Bachelor of Arts Degree, College of Liberal Arts (with a minor in secretarial and office specialties, for bilingual secretaries)

Spanish courses above 100 level.....	36
200 level: 201a,b or 275.....	5-6
300 and 400 levels: 306, 320, and 412, plus any combination of 300 or 400 level courses which includes at least nine additional 400 level hours.....	24-25
Spanish electives (only one semester of 220 may be counted toward the major).....	6

See secretarial and office specialties for a description of minor requirements.

### Bachelor of Science Degree, College of Education or Bachelor of Arts Degree, College of Liberal Arts (with secondary school certification)

Spanish courses listed above 100 level.....	36
200 level: 201a,b or 275.....	5-6
300 and 400 levels: 306, 320, 415, Foreign Languages 436, plus any combination of 300 or 400 level courses which includes a literature course and at least six additional 400 level hours.....	26-27
Spanish electives (only one semester of 220 may be counted toward the major).....	4

## Minor

Spanish courses above 100 level.....	18
200 level: 201a,b or 275.....	5-6
300 level: 306 and 320.....	7
Spanish electives (only one semester of 220 may be counted toward the minor).....	5-6

## Courses

**140-8 (4, 4) First-Year Spanish.** The basic skills of listening, speaking, reading, and writing. No previous knowledge of Spanish required. Must be taken in a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section.

**141-2 Elementary Spanish Conversation.** Conversation skills for beginners. Emphasis on everyday situations. Cannot be taken to satisfy language requirement. Not open to native Spanish speakers. Is not a companion course for 140a,b or 175. Prerequisite: 140a or equivalent.

**157-8 (4, 4) Individualized Instruction.** Teacher-assisted, mastery-based, self-paced instruction



in Spanish. Basic skills of listening, speaking, reading, and writing are learned. Parallel in scope and credit to regular basic skills courses. Not open to native speakers.

**175-5 Business Spanish: First Year.** First-year Spanish covered in one semester. The basic skills of listening, speaking, reading, and writing using business Spanish vocabulary. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: one year of high school Spanish or equivalent or special permission of instructor.

**201-6 (3, 3) Second-Year Spanish.** Continuation of grammar and composition. Exercises in language laboratory. Selected readings, with special attention to the role of Hispanic culture in world civilization. Must be taken in a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 140b or 175 or two years of high-school Spanish or equivalent.

**220-4 (2, 2) Spanish Conversation.** Practice in spoken Spanish. Prepared and impromptu group discussions on general topics and everyday situations. Frequent short talks by students. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 140b or 175 or two years of high-school Spanish.

**273-2 Study in Spain or Latin America.** Course taught as part of the summer study abroad program. Prerequisite: one year of college Spanish, or the equivalent.

**275-5 Second-Year Spanish: Business Course.** A one-semester course using a business and commerce vocabulary which can be taken in lieu of the Spanish 201a,b sequence. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 175 or 140a,b or equivalent.

**305-2 to 4 (2, 2) Advanced Conversation.** Improvement of self-expression and aural comprehension. Expansion of vocabulary and idioms in Spanish. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 201b or 275 and 220.

**306-3 Intermediate Readings in Spanish.** Designed to improve reading skills in Spanish. Not open to native speakers of Spanish without permission of the Spanish section. Prerequisite: 201b or 275 or equivalent.

**310-3 Spanish Literature 1700-1900.** The literature of Spain in the periods of Neoclassicism, Romanticism, and Realism. Prerequisite: 306.

**315-3 Spanish American Literature.** Literature in Spanish America during the 19th and 20th centuries. Prerequisite: 306.

**320-4 Third-Year Grammar and Composition.** Extensive practice in translation and composition; special attention to grammar problems, idiomatic expressions, and syntactical features. Prerequisite: 201b, 275, or equivalent.

**370-3 Spanish Culture and Civilization.** The cultural patterns and heritage of the Spanish people from earliest times to the present. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 210b or 275 or equivalent.

**371-3 Spanish-American Culture and Civilization.** A survey of the cultural heritage of the Spanish-American peoples. Class discussion in Spanish will be emphasized in order to improve conversational skills. Prerequisite: 201b, 275, or equivalent.

**388-3 Spanish as a Research Tool.** Intensive study of Spanish as a basis for development of reading knowledge. Covers grammar and vocabulary portion of first-year sequence in basic skills. Intended for graduate students. Undergraduates who wish to enroll are encouraged to consult with course instructor.

**390-1 to 6 Independent Study in Spanish.** Individual exploration of some question, author, or theme of significance within the field of Spanish literature, language, or culture. Prerequisite: consent of instructor.

**412-3 Advanced Grammar and Composition.** Designed to improve language skills beyond the level of 320. Selected grammar review and intensive practice in effective use of the written and spoken language through translations and free compositions. Prerequisite: 320.

**415-3 The Linguistic Structure of Spanish.** Theory and practice in Spanish pronunciation and study of Spanish grammatical structure, in contrast to English, with application to teaching.

**417-3 History of the Spanish Language.** Survey of internal and external history, from Vulgar Latin to Modern Spanish.

**419-3 Romance Philology.** (Same as French 419.) Historical and comparative study of the major Romance languages: their phonology, morphology, and syntax.

**425-3 Spanish Literature Before 1700.** The literature of Spain from its beginnings in the Middle Ages through the Golden Age.

**430-3 The Golden Age: Drama.** Plays of Lope de Vega, Calderon, Tirso de Molina, and others.

**431-3 Cervantes.** *Don Quixote*.

**434-3 Colonial Literature in Spanish America.** Study of the literature of Spanish America before 1825.

**435-3 Business Spanish.** Discussion and practice of the vocabulary, styles, and forms used in Spanish business correspondence, as well as report writing and documents dealing with trade, transportation, payment, banking, and advertising. Prerequisite: 320.

**460-3 Spanish Literature of the 20th Century.** The main currents and outstanding works in the literature of Spain since 1900.

**463-3 Chicano Literature.** An introduction to the literature written in the United States by Chicanos and other Hispanics.

**485-3 The Spanish American Short Story.** Survey of the genre in Spanish America.

- 486-3 Spanish American Drama.** A survey of the development of the genre from the earliest times to the present.
- 487-3 The Spanish American Novel.** Survey of the genre in Spanish America.
- 488-3 Advanced Spanish as a Research Tool.** Concentrated and individualized training in the recognition and interpretation of basic and complex grammatical structures and in the systematic acquisition of the principles of word formation for vocabulary expansion. Techniques for intensive and extensive readings and for translation of unedited texts in the student's own field of study. Intended for graduate students. With consent of student's department, and with a grade of *B* or *A*, satisfies graduate program requirements for foreign languages as research tool. Prerequisite: 388 or one year of Spanish or equivalent.
- 490-1 to 3 Advanced Independent Study.** Individual exploration of some topic in Hispanic literature, language, or culture. Prior consent of instructor required.
- 502-3 to 6 (3, 3) Seminar in Hispanic Linguistics.**
- 503-3 to 6 (3, 3) Seminar in Peninsular Spanish Literature.**
- 504-3 to 6 (3, 3) Seminar in Spanish-American Literature.**
- 521-3 Medieval Spanish Literature.**
- 530-3 Golden Age Drama.**
- 535-2 to 4 (2, 2) Spanish American Literature before 1900.**
- 540-3 Spanish Literature of the 18th and 19th Centuries.**
- 560-3 Spanish Literature of the 20th Century.**
- 565-3 to 6 (3, 3) Spanish American Literature of the 20th Century.**
- 599-1 to 6 Thesis.**
- 601-1 to 12 per semester Continuing Research.**

**Forestry** (Department, Major, Courses)

Three specializations are offered within the major in forestry. General Education requirements and a core of professional courses are similar for most specializations. Courses specifically required in the various specializations may not be taken for pass/fail credit by students majoring in the Department of Forestry. The forest resources management and outdoor recreation resource management specializations are accredited by the Society of American Foresters.

Available to the Department of Forestry for teaching and research in addition to resources present on campus are the following: the Crab Orchard National Wildlife Refuge; the Shawnee National Forest; a number of state parks and state forests; conservation areas; and the Kaskaskia Experimental Forest. Collectively, these comprise more than a million acres of forest land, all in the vicinity of the University. Also accessible for forest products utilization teaching and research is a wood products plant located near the campus. Forest scientists of the U.S. Forest Service are affiliated with the Department of Forestry, and are authorized to participate in the educational activities of the department.

**Bachelor of Science Degree, School of Agriculture**

**FORESTRY MAJOR – OUTDOOR RECREATION RESOURCE MANAGEMENT SPECIALIZATION**

The program in outdoor recreation resource management provides interdisciplinary training for management of the nation's outdoor recreation heritage. The courses offered are among those recommended by the National Recreation and Park Association and the Society of American Foresters. The outdoor recreation resource management student travels through selected sections of the United States on a park and recreation field studies session of outdoor recreation and park facilities. The summer camp requires the student pay transportation and living expenses. Other courses in this program may also require additional fees.

<i>General Education Requirements</i> . . . . .	45
<i>Requirements for Major in Forestry with Outdoor Recreation</i>	
<i>Resource Management Specialization</i> . . . . .	85
Forestry Core 200, 201, 202a, 202b, 310, 311, 315, 331, 351, 409, 410, 411, 314 or Botany 357. . . . .	35



Biology 307; Botany 200, Chemistry 140a,b .....	(9) <sup>1</sup> + 6
Agribusiness Economics 204, Agricultural Education and Mechanization 371 .....	(3) <sup>1</sup> + 2
GE-C 205, GE-D 101, 118, 153, Mathematics 140, 283 .....	(14) <sup>1</sup> + 4
Plant and Soil Science 240, 328a,b, Geography 310 .....	11
Forestry 422C Park and Wildlands Management Camp .....	4
Forestry 320, 420, 421, 423, 470 .....	13
Select at least 6 hours from Forestry 405, 416, 430, Zoology 468a, b .....	6-7
Restricted Electives .....	3-4 <sup>2</sup>
<b>Total</b> .....	<b>130</b>

<sup>1</sup>Hours included in total for General Education requirements.  
<sup>2</sup>To be elected from forest sciences, business or administration, law or law enforcement, or recreation.

FORESTRY MAJOR – FOREST SCIENCE SPECIALIZATION

The forest science specialization is available for students desiring to enter a graduate program and concentrate in a given area of knowledge. The program provides maximum flexibility to enable students and their adviser to construct individual programs within a specific field of study. The program of study may be selected from any subject area within the competence of the Department of Forestry faculty. Students must have a grade point average of 3.00 or higher in university or college level work to be eligible to enroll and remain in this specialization. New students may enroll upon recommendation of an adviser in the Department of Forestry. The student and an advisory committee comprised of at least two departmental faculty members will develop a program of study designed to meet the needs and objectives for the area of specialty selected. If the student wishes to qualify for employment registers as a forester or for other specific natural resources positions, the student and committee advisers must design a program that is carefully structured.

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Forestry with Forest Science Specialization</i> .....	75
Forestry Core 200, 201, 202a, 202b, 310, 311, 315, 331, 351, 409, 410, 411, 314 or Botany 357 .....	35
Forestry and related electives .....	40 <sup>1</sup>
<b>Total</b> .....	<b>120</b>

<sup>1</sup>The student and the academic advisers will select courses designed to meet the needs and objectives for the area of specialty selected.

FORESTRY MAJOR – FOREST RESOURCES MANAGEMENT SPECIALIZATION

The program in forest resources management includes instruction leading to careers in forest management and production, multiple-use resource management, and the forest products industries. The specialization includes areas of study recommended by the Society of American Foresters. Emphasis is upon integrated resource management of natural and renewable resources, coordinating forest utilization methods and conservation practices, and preserving our wildlands heritage. A five-week summer camp is required after the junior year to give the student practical field experience. Field study costs per student for off-campus living expenses and transportation are approximately \$150 per student and must be borne by student. Other costs for equipment and supplies which are required for field study and certain other courses are specified in course descriptions.

<i>General Education Requirements</i> .....	45
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*Requirements for Major in Forestry with Forest Resources*

<i>Management Specialization</i> .....	85
Forestry Core 200, 201, 202a, 202b, 310, 311, 315, 331, 351, 409, 410, 411, 314, or Botany 357 .....	35
Biology 307; Botany 200; Chemistry 140a,b; GE-A 118 .....	(12) <sup>1</sup> + 7
Agribusiness Economics 204, Agricultural Education and Mechanization 371, 374 .....	(3) <sup>1</sup> + 4
GE-D 101, 118, 153; Mathematics 140, 283 .....	(11) <sup>1</sup> + 4
Five-week early summer field studies:	
Forestry 310C, 314C, 320C, 351C .....	6
Forestry 412, 416 .....	5
Plant and Soil Science 240 .....	4
Two courses selected from Forestry 320, 350, 405, 460 .....	4
Two courses selected from Forestry 313, 402, 420, 430 .....	6
Restricted electives .....	10 <sup>2</sup>
<i>Total</i> .....	130

<sup>1</sup>Hours included in total for General Education requirements.

<sup>2</sup>Select one of the following plans: (1) complete at least one course (a total of 10 hours) in each of the following areas: forest and biological sciences, physical sciences, computer science and statistics, business and economics; or (2) complete a total of 10 hours within a single area selected from the above four with approval of a faculty adviser.

**Courses**

**200-1 Introduction to Forestry.** Acquaints students with the broad field of multiple-use forestry. Special emphasis is given to forestry as a profession. Required field trips cost \$15.

**201-3 Ecology of North American Forests.** An introduction to forest ecology concepts, site factors, and forests of North America. Emphasis is placed on the silvics of tree species and the impact of soil, climate, and topography on forest vegetation. Forest site-community relationships of selected major North American forest ecosystems will be studied. Saturday field trip may be required at a cost not to exceed \$10. Prerequisite: Botany 200, Plant and Soil Science 240, Biology 307, or consent of instructor.

**202-2 (1, 1) Tree Identification Laboratory.** A two-semester course that teaches field and laboratory identification of trees and shrubs using leaf, twig, bark, and fruit characteristics. Saturday field trips may be required. Extra costs total \$20 unless paid in 201. Must be taken in a,b sequence, unless otherwise arranged with consent of instructor. Prerequisite: Botany 200.

**301-3 Social Influences on Forestry.** Study of, and practice in, methods used for effecting social change in forestry and allied natural resource fields. Case studies, readings, and actual practice in techniques are used to develop an understanding of historical and current trends. Prerequisite: a course in sociology and a course in political science.

**310-4 Practices of Silviculture.** Detailed study of classical concepts and recently developed techniques utilized in silviculture treatment of forests. Major emphasis to be placed upon establishment, thinning, timber stand improvement, and regeneration of forest. Prerequisite: 331.

**310C-2 Silviculture Field Studies.** Field experience for the student in the various facets of silviculture including planning, thinning, harvesting, timber stand improvement, and site-growth relationships. Offered only at summer camp. Costs for students are given in forestry description. Prerequisite: 331 and 310.

**311-3 Resources Photogrammetry.** The science and art of obtaining reliable measurement by means of photographs, detection of disease, insects, and fire invasion by remote sensors; and delineation of resources boundaries through interpretation.

**313-3 Harvesting Forest Crops.** Emphasis is given to lumber sale layouts, sale contracts, and harvest engineering methods. Consideration is given to the environmental impacts of harvesting. Additional cost: \$25. Prerequisite: 310 and 312.

**314-3 Insect, Abiotic, and Other Stresses Within the Forest.** The impact, recognition, and control of destructive forces within the forest environment. Emphasis placed upon stresses due to climatic factors, macro-parasitic plants, chemical injury, pollution, animal damage, and forest insect pests. Prerequisite: 331, Botany 200, and GE-A 118 or consent of instructor.

**314C-2 Forest Protection Field Studies.** The prevention and suppression of forest fires, the recognition and control of insect and disease organisms and other destructive agents in the forest. Summer camp only. Cost per student given in the forestry description. Requires additional expenses of approximately \$20 per student. Prerequisite: 331 and two of the following: 314, 315, Botany 357.

**315-3 Fire in Wildland Management.** Fire as a phenomenon in wildland management. Topics covered are fire prevention, detection, suppression, behavior, effects, use, and economics. Major emphasis is on fire control and fire ecology. Prerequisite: 331.

**320-2 Recreation in Wildlands Environments.** Trends in recreational use of wildland environ-



ments and emphasis on state and federal parks and forests. Introductory concepts in recreation management, planning, and interpretation.

**320C-1 Forest and Wildlands Recreation Field Studies.** Recreation of forest and adjacent lands with emphasis on parks and national forests. Administration; interpretation; trends in use and development. Offered only at spring camp (costs per student are given in the forestry description). Requires supplemental purchases of approximately \$2 per student.

**331-3 Forest Ecosystems.** An analysis and integration of tree growth and of forest structure, material and energy flow, and classification in relation to climatic and edaphic factors to provide an ecological basis for management of forest ecosystems. Prerequisite: 201, 202, Biology 307, Plant and Soil Science 240.

**341-3 Forestry Practices.** The fundamentals of integrated resource management of timberlands. Management systems, tree stand measurements. Planting and harvesting methods, multiple-use aspects of forest lands. Field trips. Emphasis on small forest ownerships. Not for graduation credit in forest resource's management option.

**350-2 Woods as a Raw Material.** Structure, identification, and properties of wood. Important species and the significance of wood to the environment.

**351-3 Forest Resources Measurements.** Introductory measurement, statistical and data processing concepts; volume, growth, and yield of forest products; methods of sampling forest resources. Field trips. Prerequisite: Mathematics 140 and 283.

**351C-1 Forest Resources Measurements Field Studies.** Methods of determining volume and quality of forest products, forest resource inventory procedures, growth, and productivity studies. Field trips. Prerequisite: 351.

**381-1 Forestry Seminar.** Discussion of problems in or related to forestry. Prerequisite: junior standing, minimum 2.5 GPA, and consent of instructor.

**391-1 to 4 Special Problems in Forest Resources.** Independent research sufficiently important to require three hours per week of productive work for each hour of credit.

**401-3 Fundamentals of Environmental Education.** (See Agriculture 401.)

**402-3 Wildland Hydrology.** Fundamentals of hydrology as related to forest and wildland water resources will be emphasized. Considerations will include the hydrologic cycle with emphasis on soil and groundwater regimes, evapotranspiration, surface and subsurface runoff, and the quantity and timing of water yield. Prerequisite: Mathematics 140.

**405-2 Forest Management for Wildlife.** Interrelations between forest practices and wildlife populations. Emphasis is on habitat requirements of different wildlife species and ways to manipulate the forest to improve wildlife habitats. Prerequisite: forestry major, or consent of instructor.

**408-4 Introduction to Remote Sensing.** The course is an introduction to the theoretical and practical considerations of remote sensing for an interdisciplinary audience. Coverage will stress background information about the electromagnetic spectrum, reflectance characteristics of various objects, sensors, filters, platforms and energy flow between object and sensor. Prerequisite: advanced standing or graduate status.

**409-4 Forest Resources Decision-Making.** Examines management planning decision-making for multiple-use forests particularly in the public sector. Reviews concepts useful for analyzing flow-resource problems, emphasizing systems approaches, introduces use of modern quantitative methods to evaluate resource use alternatives. Case studies. Prerequisite: 411, Mathematics 140.

**410-3 Forest Resources Administration and Policy.** Nature of administrative organizations and influences on behavior of organization members. Society influences causing changes in forestry related organizations. Policy formation and implementation, including roles of special interest groups.

**411-3 Forest Resources Economics.** Introduction to forest economics: Application of micro- and macro-economic principles to forest timber and non-timber production; capital theory; benefit-cost analysis; and economics of conservation. Prerequisite: Agribusiness Economics 204 and Mathematics 140.

**412-2 Tree Improvement.** Basic theories and techniques of obtaining genetically superior trees for forest regeneration. Prerequisite: senior standing.

**414-3 Information Management.** The collection of physical, biological, and social variables in the field of forestry through sampling survey. The procedures of data manipulation and calculation and the presentation of graphs and tables.

**416-3 Forest Resource Management.** The application of business procedures and technical forestry principles to manage forest properties. Emphasis on integrated resource management for tangible and intangible benefits. Field trips and supplemental purchases approximately \$25 for student. Prerequisite: summer camp or consent of instructor.

**417-2 Forest Land-Use Planning.** Principles of location theory as a basis for determining land use; supply of forest land; population pressure and demand; conservation principles; determination of forest land values; institutional factors influencing forest land-use; forest taxation; special taxes, and capital gains. Taught in alternate years. Prerequisite: 411 or consent of instructor.

**418-2 Marketing of Forest Products.** The role of marketing in the forest industries; review of economic principles; product policy, planning the product line, pricing, marketing channels, marketing programs, marketing organization, and marketing research as influences on the marketing of lumber, wood products, pulp, and paper. Taught in alternate years. Prerequisite: 411 or consent of instructor.



- 420-3 Park and Wildlands Management.** The management of state and federal parks and recreation areas. A systems approach toward management and decision-making will be emphasized. Requires supplemental purchases of approximately \$5 per student. Prerequisite: 320C or 422T.
- 421-3 Recreation Land-Use Planning.** Principles and methods for land-use planning of park and recreation environments with emphasis on large regional parks. Focus on planning process and types of information to gather and organize. Application in group field projects. Prerequisite: 320, 420, or consent of instructor.
- 422C-4 Park and Wildlands Management Camp.** A study of park conditions, visitors, and management practices at selected county, state, and federal park systems in the United States, including the federal wilderness preservation system. Course requires a field trip and supplemental purchases. Prerequisite: 320 and 320C and consent of instructor.
- 423-3 Environmental Interpretation.** (See Agriculture 423.)
- 429-4 Wildland Watershed Analyses.** A lecture/laboratory course designed to provide a practical knowledge of the equipment, procedures, and tests used in determining the quality and quantity of waters flowing within and out of wildlands. Prerequisite: Chemistry 140a.
- 430-3 Wildland Watershed Management.** Emphasis is placed on the principles, technical problems, procedures, alternatives, and consequences encountered in managing wildland watersheds for the production of quality water in harmony with other uses. Prerequisite: 331.
- 431-3 Regional Silviculture.** Designed to evaluate the various silvicultural practices as they are commonly employed in various regions of the United States. Offered alternate years. Prerequisite: 310C.
- 451-2 Natural Resources Inventory.** Theory and practical problems in biometrics to obtain estimates of natural resource populations. Use of computers and other advanced techniques. Case studies of inventory procedures. Field trip cost – maximum \$20. Prerequisite: 351 or consent of instructor.
- 452-2 Forest Soils.** Characterization and fundamental concepts of forest soils and their relationships to forest communities and forest management practices. Emphasis is on the origin of forest soil material, soil forming processes, and the chemical, physical, and biological properties of soils as related to forests and forest management. Prerequisite: Plant and Soil Science 240 and concurrent enrollment in Forestry 452L.
- 452L-2 Forest Soils Laboratory.** Companion laboratory for 452. Emphasis is on methods to characterize and evaluate the chemical, physical, and biological properties of forest soils. Prerequisite: Plant and Soil Science 240 and concurrent registration in Forestry 452.
- 453-2 Environmental Impact Assessment in Forestry.** Methods of assessing the environmental impact of land-use systems on forest resources and assessing the impact of forest management systems on environmental quality are presented. Case studies culminating in the preparation of environmental impact statements are emphasized. Field trips cost, \$20. Prerequisite: senior standing in a natural resource major.
- 454-2 to 8 Forest Ecology Field Studies.** A study of forest communities, soils, and site conditions in one of the following ecosystems: (a) Boreal; (b) lake states; (c) Southern Appalachians; (d) Southern pine. Course requires a field trip of about 10 days. Each trip is two semester credits; a maximum of 6 credits may be applied toward graduate credit. Estimated cost \$125.00 per trip. Prerequisite: senior standing in natural resources or biological sciences, courses in tree identification, forest ecology, and soils, and consent of instructor.
- 460-2 Forest Industries.** Analysis of raw material requirements, the processes and the products of forest industries. The environmental impact of each forest industry will also be discussed.
- 470-2 Wilderness Management, Policy, and Ethics.** Study of current management philosophy and practice in America's wilderness. Analysis of current wilderness policy and its historical evolution. Discussion of the evolution of the wilderness idea and the individuals that have influenced it. Weekend field trip required. Prerequisite: 320 or consent of instructor.
- 490A-2 Resources Management Consortium.** Intensive field course in resources management decision making. Student serves as team member in solving resource problems in forestry, wildlife management, recreation, and interpretation at Land Between the Lakes. Enrollment is limited to six. Course taught at Land Between the Lakes. Cost of room and board not to exceed \$100. Not for graduate credit. Prerequisite: consent of instructor.
- 492-1 to 4 Special Studies for Honor Students.** Research and individual problems in forestry. Not for graduate credit. Prerequisite: consent of the department chairperson and a 3.0 minimum grade point average.
- 494-1 to 6 Practicum.** Supervised practicum in a professional setting. Emphasis on administration, supervision, teaching and program leadership in community, school, park, forest, institution, and public or private agencies. Students should enroll according to their curriculum specialization: (a) Forest environmental assessment, (b) outdoor recreation resource management, (c) forest resources management. Prerequisite: consent of instructor.
- 500-2 Principles of Research.**
- 501-1 Graduate Seminar.**
- 511-2 Advanced Forest Resources Economics.**
- 512-2 Tree Selection and Breeding.**
- 516-2 Advanced Forest Management.**
- 520-2 Advanced Park Planning.**
- 521-2 Recreation Behavior in Wildlands Environments.**



- 530-2 Forest Site Evaluation.
- 531-2 Biological Productivity of Forests.
- 588-1 to 6 International Graduate Studies.
- 590-1 to 4 Readings in Forest Resources.
- 593-1 to 4 Individual Research.
- 599-1 to 6 Thesis.
- 601-1 to 12 per semester Continuing Research.

Geography (Department, Major, Courses)

The Department of Geography offers three programs to undergraduate students. The Bachelor of Arts and the Bachelor of Science are offered through the College of Liberal Arts and the Bachelor of Science degree is offered through the College of Education. A minor is required of all geography majors and should be arranged in consultation with the department. Junior college transfer students interested in geography are encouraged to visit the department to determine possibilities for waivers, proficiencies, and transfer credit substitution.

Honors in geography is a special three semester program available to majors with an overall grade point average of 3.00 or better. Interested students should apply during the junior year to obtain departmental consent prior to initiation of an honors program.

The core of the major program involves 300- and 400-level courses. Geography 300, the first course in a major's program, gives a basic foundation in the topics and fields of research within geography. It acquaints students with the viewpoints and methods of geography, the concepts and theories in geography, and maps and quantitative methods, the basic techniques and tools used by the geographer. In addition to Geography 300, at least three 300-level and three 400-level courses are required. Offered are 400-level courses in resource management and physical environment systems, urban and regional planning, and geographic techniques.

The minor requirement for geography majors may be formed in either of two ways. It may be a regular minor from another department or it may be an interdisciplinary selection of courses created in consultation with the department.

Students minoring in geography must take Geography 300 or GE-B 103, three 300-level courses and one 400-level course. Geography 300 has been approved as a substitute for GE-B 103 for the General Education requirement. Social studies students with a 9-hour concentration must take Geography 300 or GE-B 103 and complete their concentration with electives from geography.

Bachelor of Arts or Bachelor of Science Degree, College of Liberal Arts

GEOGRAPHY MAJOR – GENERAL

These courses provide the base for those seeking a broad understanding of the field of geography and who have interests in preparing for graduate study or in applying geography in teaching, industry, or government.

General Education Requirements. . . . .	45
Supplementary College Requirements (See page 94.) . . . . .	(4) + 8-14
Requirements for Major in Geography . . . . .	30-32
Geography 300 or GE-B 103 . . . . .	3
Any three: Geography 302, 304, 306, 310, or one regional course . . . . .	8-9
Any 400 level courses. . . . .	11-12
Electives in Geography selected with the approval of the department. . . . .	6-8
Minor (or selection of courses complementary to major) . . . . .	15
Electives . . . . .	14-22
Total . . . . .	120

## GEOGRAPHY MAJOR – ENVIRONMENTAL STUDIES AND PLANNING SPECIALIZATION

These courses are for those interested in entering the planning field or in preparing for graduate study in urban or regional planning or some aspect of environmental analysis.

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements</i> (See page 94.) .....	(4) + 8-14
<i>Requirements for Geography Major with Environmental Studies and Planning Specialization</i> .....	30
Geography 300, 302, 310, 410, 421, 424, 425, 432, and 470a or 471	
<i>Minor Equivalent (15 hours)</i> .....	15
Many courses offered in other departments support the geography major with an emphasis in environmental planning. For a complete list see the geography undergraduate program director or the College of Liberal Arts Advisement Center.	
<i>Electives</i> .....	16-22
<i>Total</i> .....	120

**Bachelor of Science Degree, College of Education**

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Geography</i> .....	31-33
Geography 300 or GE-B 103 and 443 .....	6
Any three: 302, 304, 310, 326, or one regional course .....	8-9
Any 400 level courses .....	11-12
Electives in Geography selected with the approval of the department .....	4-6
<i>Professional Education Requirements</i> .....	28
Curriculum, Instruction, and Media 469 is required.	
See Teacher Education Program, page 83.	
<i>Minor (or selection of courses complementary to major)</i> .....	15 <sup>1</sup>
<i>Electives</i> .....	0-1
<i>Total</i> .....	120-121

<sup>1</sup>Students who intend the use of the minor for teacher certification must complete a minimum of 18 semester hours in the minor.

**Minor**

## COLLEGE OF LIBERAL ARTS

A minor in geography requires .....	15-16
Geography 300 or GE-B 103 .....	3
Any three: 302, 304, 306, 310 or one regional course .....	8-9
400 level courses .....	3-4

## COLLEGE OF EDUCATION

A minor in geography requires .....	18-20
Geography 300 or GE-B 103 .....	3
Any two: 302, 304, 306, 310, or one regional course .....	5-6
400 level courses .....	7-8
Geography 443 .....	3

**Courses**

**202-2 Contemporary World Geography: Selected Regions and Places.** A geographic study of selected regions and places of particular or current interest in the world. Some attention given to world overview and place names.

**212-2 Maps and Mapping.** History of cartography; properties, and sources of maps and air photos.



**224-3 Geography of Natural Hazards.** Damage from natural hazards in the United States is on the rise while loss-of-life has been declining. Losses from earthquakes, floods, hurricanes, tornadoes, drought, hail, and urban snow in the United States are reviewed. The range of alternatives to cope with natural hazards are appraised; and special attention is given to problems characteristic of all natural hazards – warnings, relief and rehabilitation, insurance, and land-use management.

**255-3 Regional Geography of the United States.** A survey of environmental, economic, and historical factors and problems in the development of the United States and its regions. Some attention is given to the United States in world perspective.

**257-1 to 5 Concurrent Work Experience in Geography.** Concurrent work experience in tasks specifically related to the field of geography and such as are found in cartography and map work, climatology, and resource management. Prerequisite: geography major and consent of department. Mandatory Pass/Fail.

**258-1 to 5 Past Work Experience in Geography.** Past work experience in tasks specifically related to the field of geography such as are found in cartography and map work, climatology, and resource management. Prerequisite: geography major and consent of department. Mandatory Pass/Fail.

**300-3 Introduction to Geography.** The nature of geography, the kinds of problems which it investigates, the methods which it uses. Charges not to exceed \$5 for field trip.

**302-3 Physical Geography.** A study of the earth's physical surface, world distribution patterns of the physical elements, their relationship to each other and their importance to people. Field trip and laboratory work. Charges not to exceed \$5 for field trips. Prerequisite: 300 or consent.

**304-3 Economic Geography.** Study of the spatial distribution and interaction of economic activities. Introduction to locational theory. Prerequisite: 300 or consent.

**306-3 Cultural Geography.** An overview of the geographic viewpoint in the study of the human occupancy of the earth. Aspects of population, settlement, and political geography are treated, and a generalized survey of major world cultural areas is used to integrate course elements. Prerequisite: 300 or consent.

**310-3 Introductory Cartography.** Properties of maps and air photos, their use and source; map symbols, map projections, and map construction. Introduction to the use of quantitative techniques as applied in geographic study. Laboratory. Charges not to exceed \$2 for supplies. Prerequisite: 300 or consent.

**326-3 Geography of Urban Environments.** Explores the historic and present relationship between people and the urban environment, and between urban places and the sites which they occupy. Systems of measuring environmental quality are reviewed along with methods of assessing and forecasting change in the total urban environment.

**331-2 The Human Use of Climate.** Introduces the basic concepts in the functioning of the climatic environment at the earth's surfaces and develops a holistic view of the way parts and processes of the earth interact through exchanges of energy and water with reference to questions of the human use of the earth.

**332-3 Oceanography.** A systematic review of the world's oceans, with study of the nature of ocean water, the role of oceans in the Hydrologic Cycle, characteristics of ocean basins, the transport of ocean water, materials and energy exchanges in the oceans, and ocean management and resource problems.

**360-3 Geography of Illinois.** Introduces and explores some of the spatial elements of the physical and human geography of the State of Illinois through a comparative analysis of the urban and rural lifespaces. Specific geographic issues and problems are selected by the students for group discussion and analysis. Charges not to exceed \$5 for field trips.

**362-2 Regional Geography of Europe.** Introduces present-day Europe. Survey of the area and an investigation of problems and issues affecting the region.

**363-2 Regional Geography of Mediterranean Lands and Southwestern Asia.** Geography of northern Africa and the Near East in a systematic context. Settlement and land use patterns, cultural history and diversity, and contemporary problems.

**364-2 Regional Geography: Soviet World.** Introduction to and survey of the Soviet world and investigation of problems and issues affecting the region.

**365-2 Regional Geography of Sub-Saharan Africa.** (Same as Black American Studies 380.) Analysis and explanation of emerging spatial pattern of socio-economic development in Africa as most meaningful to the geographer in assessing the continent's transition from traditional to modern political, social, and economic systems.

**366-2 Regional Geography: Eastern and Southern Asia.** Introduces present-day Eastern and Southern Asia. Survey of the area and an investigation of problems and issues affecting the region.

**367-2 Regional Geography of South America.** Analysis of the landscapes of tropical and Andean South America. Historical background of current patterns and problems. Present and future development problems in terms of natural resources, economic, and agricultural systems, and ethnic and settlement patterns.

**368-2 Regional Geography of Middle America.** Interrelationships of groups of humans and their physical and social environments in Middle America. Emphasizes historical depth of perspective. Clarifies the origin of problems in the region.

**369-2 Regional Geography of Oceania.** Introduces present day Oceania. Survey of the area and investigation of specific problems and issues affecting the region.

**400-3 Geography of Outdoor Recreation.** Analysis of patterns of outdoor recreation with an



emphasis on metropolitan areas. Selected topics include demand forecasting methods, cost-benefit analysis and the valuation of recreation resources, and an analysis of the socioeconomic and spatial impacts of recreation facility provision.

**404-3 Spatial Analysis.** The purpose of this course is to equip the student with a series of perspectives and tools with which to view spatial phenomena. Emphasis is placed on methodological approaches to the analysis of areal distributions and phenomena. Longitudinal analysis of data is included. Prerequisite: 300. Geography 410 is advisable or consent of instructor.

**406-2 Advanced Social Geography.** Deals with one or more of the following: population, settlement, ethnic characteristics, political factors; depending on, and varying with, interests of the instructors. Thus, a student may register more than one time. Emphasis will be directed at familiarizing the student with techniques of analysis, and at developing concepts and principles that underlie understanding of the phenomena and their geographic significance. Prerequisite: 306 or consent.

**410-4 Techniques in Geography.** Geographic applications of basic and advanced statistical and mathematical techniques, including basic descriptive statistics, hypothesis testing, regression and correlation, analysis of variance, and nonparametric statistics. Special emphasis on areal measures: nearest neighbor analysis, etc. Prerequisite: 300 or consent.

**416-4 Specialized and Computer Mapping.** Introduction to computer mapping, mapping from air photos, specialized cartographic problems based on individual student interests. Laboratory. Charges not to exceed \$2 for supplies. Prerequisite: 310 or consent.

**418-3 Management of Spatial Data Bases.** Introduces students to the use of specialized computer programs for the collection, storage, analysis, and mapping of spatial data. A simplified methodology makes the techniques available to students with no previous computer experience. Prerequisite: 310, 304, or consent of instructor.

**421-2 Urban Geography.** Examination of extracity relationships – theory and structure; intra-city relationships – theory and structure, and selected urban problems. Offered once annually. Prerequisite: 300 or consent.

**422-4 Economics in Geography and Planning.** (Same as Economics 425.) Concepts, symbols, language, theory, and elementary mathematics of economics and geography. Individual's preferences, production functions, the firm, markets, optimality, externalities, and welfare economics. Elementary mathematics of time and intertemporal criteria. Prerequisite: 304 or consent of instructor.

**424-4 Natural Resources Planning.** Literature in resource management problems. Emphasis on theory, methods of measurement and evaluation concerning implications of public policy. The role of resources in economic development and regional planning, water and related land resource problems, and environmental quality from a multi-disciplinary perspective. Prerequisite: 304 or consent.

**425-4 Water Resource Planning Simulation.** A review of water resource planning theory and practice from a physical, technological, economic, social, and geographical viewpoint. Students design a comprehensive water resource plan including flood control, water supply, water quality, and recreation for a city of 175,000 population. This plan is "Played" against a 50-year trace of hydrologic parameters in a computer simulation. Prerequisite: 424 or consent.

**426-4 Administration of Environmental Quality and Natural Resources.** (Same as Political Science 445.) An examination of institutional arrangements and administrative practices in the protection and use of land, water, air, and mineral resources. The course includes analysis of responsibility and decision-making at all levels of government (federal, state, and local) as well as corporate, interest group, and individual responses to public programs. Particular attention will be given to administration of federal environmental quality legislation including the National Environmental Policy Act, the Clean Air Act, the Water Pollution Control Act, and the Surface Mining Reclamation Act. Prerequisite: 300, or 326, or consent of instructor.

**427-3 Environmental Perception and Planning.** Deals with a description and assessment of the relevance of normative and descriptive theories of decision-making and theories of choice for public policy and environmental management. Studies of the perception of urban environments and other landscapes such as wilderness areas, and perception of and human response toward natural hazards will be considered. Prerequisite: 300 or consent.

**430-3 Theory of Environment.** Exploration of the hypothesis that the physical environment works on local hydrology, soils, and natural vegetation, agriculture, and landforms, through energy and moisture exchanges, Emphasis on model building for comparison of subsystems, to rate effectiveness of contrasting environments, and to project these consequences to environmental management questions. Prerequisite: 302 or consent.

**432-4 Physical Environments of Cities.** Energy and moisture budget concepts are developed from basic principles. Microclimatic data, instrumentation and applications stress urban examples. Models of climatic effects and modeling of people's effects concern city climates mainly. Charge not to exceed \$5 for field trips. Prerequisite: 302 or 430 or consent.

**433-3 Advanced Physical Geography.** Topics may include landforms, climate, soil or water. Varies with the interest of the instructor. Prerequisite: 302 or consent.

**434-4 Water Resources Hydrology.** Microclimatic factors which affect the hydrologic events of various climatic regions are treated extensively. Methods of estimating geographic variations in hydrologic relations to climatic and microclimatic especially evapotranspiration, are compared



and evaluated. Consequences of alternative land uses on climate and hydrology are considered regionally. Charges are not to exceed \$10 for field trips. Prerequisite: 302 or 430 or consent.

**435-3 Solar and Alternate Energy Planning.** Regional and national strategies for energy supply and demand are reviewed followed by a study of current energy resources, reservoirs, and the range of demands and environmental impacts. Community and national planning strategies for increasing the use of solar and alternate energies are explored, simulated by analog computer, and assessed for present and future implementation probability. Field trip expenses not to exceed \$10. Prerequisite: 300.

**438-3 Applied Meteorology.** Analysis of meteorological patterns approached through study of several case histories. Evaluation of meteorological data, air mass and frontal analysis, development of weather forecasts, study of meteorological instruments, clouds, and precipitation patterns. Charges not to exceed \$5 for field trips. Prerequisite: GE-A 330 or consent of instructor.

**439-3 Climatic Change – Inevitable and Inadvertent.** The geologic time-scale perspective of major natural events that have affected the theoretical steady-state climate, and factors in contemporary societal practices that have brought about inadvertent climatic modification. An assessment of the means and extremes of parameter values in the geologic time-scale perspective studied will be compared with the documented and present-day climatic parameter means and extremes. Approaches to prognoses for the Earth's future climatic state will be made. Charges not to exceed \$10 for field trips. Prerequisite: 330, 331, or consent of instructor.

**440-2 Tutorial in Geography.** Prerequisite: geography major, senior standing.

**443-3 Teaching of Geography.** Presentation and evaluation of methods of teaching geography. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels. Charges not to exceed \$3 for field trips. Prerequisite: 300.

**470-6 to 9 (3, 1 or 2, 2 to 4) Urban Planning.** (a) Planning concepts and methods. (Same as Political Science 447a.) Charges not to exceed \$8 for field trips. (b) Field problems. (Same as Political Science 447b.) (c) Planning and public administration internship (for undergraduate credit only). Prerequisite: 326 or 421 or consent of instructor.

**471-3 Regional Planning.** A study of the viewpoints, methodology, and experience of various types of regional planning in the United States; some attention given to state and national scale planning. Prerequisite: 300 or consent.

**487-6 (1, 2, 3) Honors in Geography.** (a) honors tutorial; (b) honors reading; (c) honors supervised research. Must be spread over the last two years of the undergraduate's career. May be taken in either a, b, c, or b, a, c sequence. Prerequisite: consent of department.

**490-2 to 4 Readings in Geography.** Supervised readings in selected subjects. Prerequisite: geography major, advanced standing.

**500-2 Principles of Research.**

**501-2 Seminar in Geographic Research.**

**510-4 Multivariate Techniques in Geography.**

**511-2 Philosophy of Geography.**

**514-2 College Teaching of Geography.**

**520-2 to 4 Seminar in Physical Systems Evaluation.**

**521-2 to 4 Seminar in Resource Planning.**

**522-4 Seminar in Economics in Geography and Planning II.**

**524-2 to 4 Seminar in Social Geography.**

**527-2 to 4 Seminar in Urban and Regional Planning.**

**570-2 to 4 Planning Internship.**

**591-2 to 4 Independent Studies in Geography.**

**593A-2 to 24 (2 to 6 per semester) Research in Physical Geography.**

**593B-2 to 24 (2 to 6 per semester) Research in Economic Geography.**

**593C-2 to 24 (2 to 6 per semester) Research in Urban and Regional Planning.**

**593D-2 to 24 (2 to 6 per semester) Research in Social Geography.**

**596-2 to 4 Field Course.**

**599-2 to 6 Thesis.**

**600-1 to 32 (1 to 16 per semester) Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Geology (Department, Major, Courses)

In the field of geology a student may work toward either a Bachelor of Arts or Bachelor of Science degree.

The Bachelor of Arts degree requires a major in geology but is a flexible program, permitting a student to combine training in geology with courses in other areas of interest, such as peripheral sciences, management, or pre-law. A minor is optional. Having obtained a Bachelor of Arts degree, students may continue their education toward a Master of Science degree in geology, although it may be necessary to absolve deficiencies in physics and mathematics.

The Bachelor of Science degree requires a major in geology and courses in biology, chemistry, mathematics, physics, and science electives. This degree will ordinarily be pursued by students desiring to do graduate work in geology or to become professional geologists.

### **Bachelor of Arts Degree, College of Science**

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	9-10
Mathematics 108 and 109 or 111 .....	(3) + 2-3
Foreign Languages .....	(4) + 4
Biological Sciences (Not General Education) .....	(3) + 3 <sup>3</sup>
<i>Requirements for Major in Geology</i> .....	37-41
Geology 220, 221, 302, 310, 315, 325, 425, 474, and 450 or 454 <sup>4</sup> .....	(3) + 28-32
Chemistry 222 .....	(3) + 5 <sup>2</sup>
Physics 203a, 253a or 205a, 255a .....	4 <sup>2</sup>
<i>Electives</i> .....	24-29
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>Courses will also meet the physical science requirement for the College of Science.

<sup>3</sup>If courses which have been approved as General Education substitutes are taken, they will count as a part of the 45 hours in General Education.

<sup>4</sup>The summer field geology course, Geology 454, should be taken between the junior and senior years.

### **Bachelor of Science Degree, College of Science**

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	9-10
Mathematics 108 and 109 or 111 .....	(3) + 2-3
Foreign Languages .....	(4) + 4
Biological Sciences (Not General Education) .....	(3) + 3 <sup>4</sup>
<i>Requirements for Major in Geology</i> .....	60-61
Geology 220, 221, 302, 310, 315, 325, 415, 425, 454 <sup>3</sup> , 474, and 435 or 436 .....	(3) + 38-39
Geology electives .....	5
Mathematics 150 .....	4
Chemistry 222 .....	(3) + 5 <sup>2</sup>
Physics 203a,b, 253a,b or 205a,b 255a,b .....	(3) + 5 <sup>2</sup>
Electives in supporting sciences or technology (to be approved by geology undergraduate adviser) .....	3
<i>Electives</i> .....	4-6
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>Courses will also meet the physical science requirement for the College of Science.

<sup>3</sup>The summer field geology course, Geology 454, should be taken between the junior and senior years.

<sup>4</sup>If courses which have been approved as General Education substitutes are taken, they will count as a part of the 45 hours in General Education.

### **Minor**

A minor consists of 16 hours, determined by consultation with the geology adviser.

### **Courses**

Courses with a laboratory may require purchase of a laboratory manual and a supply fee. All courses requiring field trips may have a field trip cost of approximately \$2 to \$7.



**220-3 Physical Geology.** Introduction to the structure and composition of the earth, and concept of geologic time, and the physical and chemical processes that operate to modify the earth and its surface. Speculations concerning the origin and early development of the earth. Two lectures and one three hour laboratory. One Saturday field trip required. Prerequisite: high school or college chemistry.

**221-3 Historical Geology.** Principles and methods of interpreting Earth's history. General review and selected examples of Earth's physical, biological, and chemical history. Laboratory and field trips required. Prerequisite: 220; a biology course is recommended.

**302-4 Fundamentals of Structural Geology I.** An introduction to structural geology including a study of the forces involved in the deformation of the earth's crust, with special emphasis on the recognition and interpretation of the resultant geologic features. Laboratory and two Saturday field trips required. Prerequisite: 220, Mathematics 111. Recommended: Physics 203, or 205 or concurrent enrollment.

**310-4 Mineralogy.** Rudiments of crystal structure, morphology and symmetry. Introduction to crystal chemistry. Study of the properties, chemistry, occurrence and identification of common rock-forming and economically important minerals. Lecture-laboratory. Prerequisite: 220, Chemistry 222.

**315-4 Igneous and Metamorphic Petrology.** An introduction to the processes involved in forming igneous and metamorphic rocks, to the geological environments in which these rocks are located, and to their characteristics and classifications. Laboratory. Field trip required. Prerequisite: 310.

**321-3 Fossils: Keys to Ancient Life and Environments.** For non-majors. A knowledge of the origin, development, and distribution of ancient life, environments, and relations of life to environments is gained through the study of fossils and associated rocks. Examples of ancient environments, their fluctuations and changes are compared with fluctuations and changes in modern environments.

**325-4 Sedimentology and Stratigraphy.** The characteristic features of sedimentary rocks and the physical and chemical processes responsible for their origin and diagenesis. The classification of stratigraphic units, methods of correlation, and paleogeologic reconstruction. Laboratory and field trips required. Prerequisite: 220, 221, 310; 415 recommended.

**330-3 Geology of Illinois.** For non-majors and beginners. The physical nature of Illinois, its landforms, rocks and soil, geologic history of its formation, active processes and hazards today. Resource development, land and water use and management. Laboratory provides for individual interests in collecting, photography, ecology, planning, etc.

**390-3 Introduction to Mining Geology.** Structure and composition of the earth as these impact specifically on mining engineering problems; geologic time, sequence of events, major geologic provinces, types of ore deposits, use of core data, preparation and interpretation of geologic cross-sections. Two lectures and one three-hour laboratory. Two Saturday field trips required. Prerequisite: 220.

**412-3 Topics in Igneous Petrology and Geology.** In-depth studies of selected topics in igneous petrology and igneous geology. The selected topics will emphasize theoretical considerations, experimental considerations, and field associations of a variety of igneous rock types. Lecture, discussion sessions, and laboratory. Prerequisite: 315, 415.

**413-3 Quantitative Methods of Geology.** An introduction to quantitative methods in a geological and earth sciences context. Topics introduced include sampling plans for geologic studies, non-parametric test of geological data, comparisons of geological samples, analysis of sequential geological data. Laboratories will deal with numerical examples from all areas of geology. Prerequisite: advanced standing and consent of instructor.

**414-3 Paleobotany.** (See Botany 414.)

**415-3 Optical Mineralogy.** The optical properties of minerals and the use of the petrographic microscope for identification of crystals by the immersion method and by thin section. Lecture, laboratory. Prerequisite: 310, Physics 203b, or 205b.

**416-3 X-ray Crystallography.** (Same as Chemistry 416.) Introduction to the study, measurement, and identification of unknown crystalline materials by X-ray diffraction techniques (especially the Debye-Scherrer methods). Upon request, non-geology majors may work with unknowns from their own fields of study. Prerequisite: 310, Mathematics 150 or consent.

**417-3 Isotope Geochemistry.** Stable and radioactive isotopes and the applications of isotopic studies to igneous and metamorphic petrology, ore deposits, sedimentology, surface processes, geothermometry, and geochronology. Introduction to isotopic techniques and mass spectroscopy. Laboratory or research project required. Prerequisite: 310, 315, and 325 or consent. Recommended: Physics 203, Mathematics 150, and Geology 419.

**418-3 Low Temperature Geochemistry.** The application of chemical principles to geologic processes that occur on and near the earth's surface. Lecture, laboratory. Prerequisite: 310, Chemistry 222 or equivalent.

**419-4 Ore Deposits.** The geological and other factors that govern the exploration for and occurrence of metalliferous mineral deposits. Study of the geological settings of the major types of ore deposits. Lecture, laboratories, and field trips. Prerequisite: 302, 315.

**420-3 Petroleum Geology.** The geological occurrences of petroleum including origin, migration, and accumulation; a survey of exploration methods, and production problems and techniques. Lab-



oratory study applies geological knowledge to the search for and production of petroleum and natural gas. Prerequisite: 221, 302.

**425-4 Invertebrate Paleontology.** Principles of paleontology and a survey of the important invertebrate phyla and their fossil representatives. Laboratory. Field trips required. Prerequisite: 221, a biology course.

**428-3 Paleoecology and Environments of Deposition.** Characteristics, distribution, and classification of recent and ancient environments. Criteria for recognizing ancient environments. Sedimentological and paleoecological approaches. Recognition of ancient environments and environmental associations. Laboratory. Field trips required. Prerequisite: 425, 325, or concurrent enrollment.

**430-3 Physiography of North America.** A regional study of North American landforms and their origins. The approach designed to give interaction among students, stimulus in organization and presentation of material and library competence. Plan a trip for optimum view of North American physiography. Prerequisite: 220.

**434-3 Volcanology.** Volcanic processes and products. Topics include magmas, eruptive styles and mechanisms, lava flows, pyroclastic deposits, volcano morphology, monitoring and prediction techniques. Prerequisite: 220, 315, and advanced standing.

**435-3 Solid-Earth Geophysics.** Earth's size, shape, mass, age, composition, and internal structure are reviewed in detail as understood from its volcanism, gravity and magnetic fields, seismicity, and motion of continents and ocean basins; plate tectonics. Prerequisite: 302, Mathematics 150, or consent of instructor.

**436-4 Elementary Exploration Geophysics.** Theory and practice of geophysics as applied to the exploration and development of natural resources. Laboratory involves use of geophysical instruments and interpretation of data. Field trips required. Prerequisite: 220, Mathematics 150.

**437-3 Field Course in Geophysics.** Use of geophysical equipment for collection, analysis and interpretation of seismic, gravity, magnetic, electrical, and other types of geophysical data. Prerequisite: 436 or consent.

**440-1 to 4 Advanced Topics in the Geological Sciences.** Individual study or research or advanced studies in various topics. Prerequisite: advanced standing and consent of instructor.

**445-3 Museum Studies in Geology.** History, nature and purpose of geology in museums, relationships of geology to other museum disciplines, application of geologic methods to museum functions, preparation and preservation of specimens; nature, acquisition and utilization of geologic collections in museums, role of research in museums.

**450-2 Introduction to Field Geology.** Introduction to field techniques, principles of geologic mapping and map interpretation. Field trip fee \$5.00. Prerequisite: 302, 315 or concurrent enrollment.

**454-6 Field Geology.** Advanced field mapping in the Rocky Mountains, including problems in stratigraphy, structure, petrology, paleontology, geomorphology, and economic geology. Transportation cost approximately \$150, supplies \$6. Prerequisite: 302, 315; 450 recommended.

**455-3 Engineering Geology.** (Same as Engineering 455.) An examination of problems posed by geology in the design, construction, and maintenance of engineering works. Topics studied include ground water, land subsidence, earthquakes, and rock and soil mechanics. Two term papers and a field trip required. Prerequisite: 220 or consent.

**460-3 Geological Data Processing.** Computer applications to geological problems including the processing and programming of data and the interpretation and evaluation of results. Lecture, laboratory. Prerequisite: Engineering 222 or Computer Science 202.

**462-3 Fundamentals of Structural Geology II.** Intermediate topics in structural geology including strain theory, field strain analysis, geometry of complex mesoscopic structures and introduction to dislocations, deformation history, and microfabric analysis. Hypotheses and orogenesis are discussed and evaluated. Lecture and assigned problems only. Prerequisite: 302 or equivalent.

**466-3 Tectonics.** Fundamentals of geodynamics applied to plate tectonics: mantle composition and rheology, deformation of the lithosphere, structural characteristics of plate margins, stability of triple junctions, diachronous tectonics, and orogenesis will be examined in detail. Prerequisite: 302, Mathematics 150, or consent of instructor.

**470-3 Hydrogeology.** A problem-solving oriented course which covers the analysis and interpretation of the distribution, origin, movement, and chemistry of ground water. Laboratory. Prerequisite: 220, Mathematics 250.

**474-3 Geomorphology.** Study of erosional and depositional processes operating at the earth's surface and landforms resulting from these processes. Relationship of processes and landforms to the geologic framework is examined. Laboratory. Prerequisite: 220.

**476-3 Pleistocene Geology.** Deposits, stratigraphy, and history of the Pleistocene Epoch. Evidence for differentiating and dating the glacial and interglacial sequence examined including deep sea cores, soils, magnetic studies. Required field trips. Prerequisite: 220, 221.

**478-4 Environmental Geology.** Application of principles of geomorphology to the understanding of environmental problems and geologic hazards. Emphasis on environmental problems related to soils, mass movements, rivers, flooding, waste disposal, groundwater, and coastal processes. Lectures, case studies, and seminars will focus on special problems. Laboratory exercises deal with techniques for assessing environmental hazards (i.e., slope hazards, soil descriptions, flood frequency, and surface water hydrology). Prerequisite: 220 and 474.

**480-3 Geology of Coal.** Geology as related to exploration, development and mining of coal; stra-



tigraphy, sedimentation and structure of coal deposits; type of coal basins and their tectonic setting; concepts of cyclical deposition in coal basins; origin of splits and partings in coal seams; relationship of modern environments and ancient coal-forming environments; structural problems relevant to exploration and mining of coal; methods of resource evaluation. Three 1-hour lectures/week; five 1/2 day field trips.

**482-3 Coal Petrology.** Structural features and microscopy of coal seams. Origin and alteration of coal constituents. Includes field trips, study of coal specimens, and techniques. Prerequisite: 220 and 221 or consent of instructor.

**484-3 Palynology.** (Same as Botany 484.) Taxonomy, morphology, stratigraphic distribution, and ecology of fossil pollen, spores, and associated microfossils. Prerequisite: 220, 221, or consent of instructor.

**500-1 to 2 Teaching for Geology Graduate Students.**

**510-2 Advanced Sedimentology.**

**513-2 Advanced Geologic Data Analysis.**

**516-3 Industrial Rocks and Minerals.**

**517-2 to 9 (2 to 3 per semester) Advanced Topics in Geochemistry.**

**518-3 Clay Mineralogy.**

**520-2 to 9 (2 to 3 per semester) Advanced Topics in Igneous and Metamorphic Petrology.**

**522-3 Sedimentary Petrology – Siliciclastics.**

**523-3 Sedimentary Petrology – Carbonates.**

**524-2 to 9 (2 to 3 per semester) Advanced Topics in Sedimentary Geology.**

**525-2 to 6 (2 to 3 per semester) Advanced Topics in Invertebrate Paleontology.**

**526-3 Advanced Topics in Applied Paleoecology.**

**527-3 Micropaleontology.**

**535-1 to 9 (1 to 3 per semester) Advanced Topics in Geophysics.**

**536-3 Earthquake Seismology.**

**537-3 Applied Seismology.**

**538-6 (3, 3) Gravity and Magnetism.**

**542-2 (1, 1) Seminar in Geology.**

**565-3 Rock Deformation and Structural Systems.**

**566-3 Advanced Topics in Structural Geology.**

**570-3 Advanced Hydrogeology.**

**576-3 The Coastal Environment.**

**577-2 to 9 (2 to 3 per semester) Advanced Topics in Surficial Geology.**

**578-3 Fluvial Geomorphology.**

**582-1 to 6 (1 to 3 per semester) Advanced Coal Petrology.**

**591-1 to 6 Individual Research in Geology.**

**599-1 to 6 Thesis.**

**600-1 to 30 Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Health Care Management

(SEE ADVANCED TECHNICAL STUDIES)

## Health Education (Department, Major, Courses)

The Department of Health Education offers two specializations within the health education major and two programs of minimal professional preparation. The two specializations are:

1. Community health. For those planning to conduct health education and health promotion activities in non-classroom settings.
2. Health education in secondary schools. For those planning to teach health education in the secondary schools.

The two minimal professional preparations are:

1. Health education in secondary schools. For those planning to teach or supervise health education in the secondary schools.
2. Driver education. For those planning to teach driver education in Illinois secondary schools.

These specializations in general, constitute minimal preparation for the positions listed. Consequently, all candidates are strongly urged to complete additional work in the field.

Psychomotor and verbal skills are required for students enrolled in Health Education 334 and 434. If questions arise concerning an individual student's ability in these areas, an assessment will be made prior to the end of the first week of the semester to determine whether the individual student possesses the necessary skills to remain in the course. The final decision will be made by the first aid coordinator in the Department of Health Education.

A student in the community health specialization must have a 2.5 grade point average in the major before clearance to do an internship.

**Bachelor of Science Degree, College of Education**

HEALTH EDUCATION MAJOR – COMMUNITY HEALTH SPECIALIZATION

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Health Education</i> .....	(2) + 32-36
Health Education 301, 305, 311, 312, 326, 330, 355, 401, 483, 490, and 491; GE-E 201	
<i>Recommended Electives</i> .....	12-15
<i>Electives</i> .....	27-31
<i>Total</i> .....	120

HEALTH EDUCATION MAJOR – HEALTH EDUCATION IN SECONDARY SCHOOLS SPECIALIZATION

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Health Education</i> .....	30
Health Education 301, 305, 312, 313s, 326, 334, 355, 401, 405, and 491	
<i>Professional Education Requirements</i> .....	25
(See Teacher Education Program, page 83.)	
<i>Electives</i> .....	20
<i>Total</i> .....	120

The two minimal professional preparations requirements for Illinois teachers are:

Health Education in Secondary Schools: Health Education 301, 305, 312, 334, 355, 405, and 491

Driver Education: Health Education 302S, 313S, 442S, 443S, 475S, plus three hours of electives from the following: Health Education 323S, 334, 445, 470S, 480S, 481S, 495S

**Courses**

**240-2 Human Relations Between the Sexes.** Explores concepts and issues including development of sexuality, selection of a life partner, premarital sex experience, modern morality and the development of sexual mores, marriage, family planning, reproduction, varieties of sexual expression, and sex education.

**301-3 Advanced Concepts of Health.** Interrelatedness and interdependence of health as a total concept. Concepts of health and health education within the context of an option-expanding world are examined. Emphasizes role of the individual in assuming responsibility for one's own health behavior as well as education for a health-activated citizenry.

**302S-3 Driver and Traffic Safety Education – Introduction.** A beginning course that deals with the highway transportation system, traffic problems, the driving task, perception and implementation of the driver education classroom program. Observation of the teaching environment is included. Prerequisite: a valid driver's license.

**305-3 Principles and Foundations of Health Education.** An introductory professional course in the field, designed to implement the evolving concept that health education is both content and process; major concepts for a variety of teaching-learning approaches in school and other community settings are considered; health careers and opportunities in field are described.

**310-6 Emergency Medical Technician.** Upon successful completion of a national examination, meets the formal requirements and certification for those who want to become an Emergency Medical Technician. The course is concerned with cognitive and practical experiences. Triage, vehicle extrication, emergency room observation, and driving an ambulance experiences conducted outside the normal class meeting times are required. Students will be required to pay a laboratory fee of approximately \$25. Prerequisite: restricted to written consent of course coordinator.

**311-3 Human Growth and Development.** An overview of human development from conception through senescence. Designed for professional personnel who will be concerned with planning



health programs for groups representing broad age ranges. Emphasis will be on physical, mental, and social dimensions of growth and development.

**312-3 Emotional Health.** Concepts of positive emotional development in terms of influence in the classroom and other community settings.

**313S-3 Introduction to Safety Education.** Introduces the principles and fundamentals of safety education. Concerns safety as a social problem and considers major accident areas, accident causes, liability, and analyzes possible solutions to accident problems.

**323S-3 Methods and Materials in Safety Education.** Learning strategies used in teaching safety for elementary and secondary school levels. Emphasizes selection and design of materials participation and demonstration.

**326-3 Evaluation in Health Education.** Principles and methods for monitoring the implementation of health education and for assessing its impact. Development and selection of valid and reliable measures. Use of standardized scores and other appropriate statistics. Applications in classroom and community settings.

**330-3 Consumer Health.** Federal and state legislation affecting consumer health; official watchdog agencies on consumer health; non-official agencies (AMA, CU, etc.); health and advertising in health and medicine; cultists' and faddists' effect on consumer health.

**334-3 Standard First Aid and Personal Safety.** Provides students with first aid knowledge and skill competencies necessary to care for injuries and meet emergencies. The course can lead to certification in American National Red Cross standard first aid and personal safety, cardiopulmonary resuscitation, and standard first aid and personal safety instructor programs.

**350-3 Health Education in the Elementary School Curriculum.** Acquaints the prospective teacher in the elementary school with fundamental processes, techniques and instructional materials related to health education.

**355-3 Introduction to Community Health.** Organization and administration in local, state, and national official and non-official health agencies, their purposes and functions, and an overview of methods for meeting community health needs and for solving community health problems.

**400-2 to 15 (2 to 3 per part) Health Appraisal of School Children.** (a) General assessment. (b) Hearing conservation. (c) Vision training. (d) Spinal screening program. (e) Special topics. Includes the screening, testing, and evaluation for numerous health conditions related to hearing, vision, the cardiovascular system, skin, spine, and such diseases as diabetes, tuberculosis, herpes, and other such ailments. Included will be classroom lectures and presentations, a supervised practicum, and all students will develop a viable program in a particular problem area in a public school program.

**401-3 Epidemiological Approaches to Disease Prevention and Control.** Principles and practices in the cause, prevention, and control of diseases in various community settings.

**402-3 Death Education.** Designed to prepare educators to conduct learning experiences about death and dying in a variety of school, college, medical care, and community settings. Stress will be placed on developing brief, functional curricula and usable, imaginative teaching-learning materials, and on evaluating resource materials for use in educating at various levels of maturity.

**405-3 Sex Education.** Examines various programs of sex and family life education in schools, recognizing a range of community attitudes.

**406-3 A Seminar: The Health Professional and Human Sexuality Issues.** Human sexuality issues which must be dealt with by professional health workers including nurses, physicians, patient educators, institutional supervisors, and other administrators are considered in the course and current approaches and solutions for questions raised by these issues are examined.

**407-3 Drug Education.** Meets requirements of Illinois state law for education concerning drugs including alcohol for grades K-12. Explores motivations behind use and abuse of drugs. Offers experiences in development of curriculum and teaching approaches and material.

**410-3 Human Sexuality.** Provides detailed in-depth information on such topics as philosophical views of sexual behavior, sex techniques, sex therapy, sexual variations, sexual anatomy and physiology, including the sexual response and changes with age and sexual development in childhood.

**411-3 Emergency Medical Technician in the Wilderness.** Placement of trained emergency medical technicians into a wilderness situation and having them adopt previously learned skills and newly developed skills. Required to help purchase supplies as indicated in class. Prerequisite: 310 or 434.

**430-3 Health and Injury Control in A Work Setting.** (Same as Industrial Technology 430.) Assesses the health and injury control programs present in a work setting. Emphasis given to employee programs in health, wellness, and injury control that are effective. Field trips to work sites are included.

**434-4 Advanced First Aid and Emergency Care.** Meets the needs of those in positions where a complexity of first aid emergency care procedures are needed. American National Red Cross and Illinois Heart Association Certification can be obtained. Students may be required to purchase materials not to exceed \$15. Consent of instructor required.

**440-3 Health Issues in Aging.** Students enrolled in the course will be involved in a wide variety of learning activities focusing on health needs of the elderly. The course is designed for students who have a special interest in health implications of aging.

**441-3 Women's Health.** The course deals with a wide variety of health concerns of American women as consumer in the current health marketplace. Major categories of topics include health products, health services, and sources of health information of particular interest to women. Em-



phasis is also placed on current health related issues of women. The major purpose of the course is to provide a basis for informed decision-making by the female consumer.

**442S-5 Driver and Traffic Safety Education – Practicum.** Provides prospective teachers with simulation, range, and on-road teaching experience with beginning drivers. Students may be required to purchase materials not to exceed \$15. Prerequisite: 302S.

**443S-3 Driver and Traffic Safety Education – Program Administration.** Emphasizes administration, reimbursement, scheduling, public relations, planning, and evaluation of driver education. Prerequisite: 442S or consent of instructor.

**445-2 to 6 (2 to 3, 2 to 3) Contemporary Specialized Laboratory Techniques.** Provides teachers and other highway safety personnel with instructional experience in (a) motorcycle safety, (b) emergency evasive and pursuit driving. Prerequisite: 302 or consent of instructor. Maximum of 6 semester hours may be obtained either graduate or undergraduate.

**450-3 Health Programs in Elementary Schools.** Orientation of teachers to health programs and learning strategies. Designed for elementary education majors.

**455-3 Computer Applications in Health Education.** Designed for students with little or no previous experience with computers. The course will be applications oriented, with an introduction to the potential uses of computers in the field of health education.

**460-3 Health Programs in Secondary Schools.** Orientation of teachers to health programs and learning strategies. Designed for secondary education majors. Open to non-health education majors only.

**461-1 to 12 Health Education Workshop.** A different focal theme each year; e.g., mood modifying substances, ecology, human sexuality, emotional and social health dimensions. Information, ideas, and concepts are translated into teaching-learning materials and approaches; continuing opportunity for interaction between prospective and experienced teachers.

**470S-3 Highway Safety as Related to Alcohol and Other Drugs.** Relationship between alcohol and other drugs and traffic accident causes. A review of education programs designed to minimize drug related accidents. Prerequisite: advanced standing or consent of instructor.

**471-2 Health Education Instructional Designs.** Analysis of existing education curricula with emphasis on student development of instructional designs and modules. Students will prepare, utilize, and critique materials. Prerequisite for student teaching in health education. Prerequisite: 305.

**475S-3 Traffic Law Enforcement and Planning.** Acquaints safety and driver education teachers and highway safety personnel with purposes of traffic law enforcement and engineering, and methods used to fulfill these purposes. Emphasis is placed upon ways of improving existing services and coordinating efforts of official and non-official agencies concerning traffic problems. Prerequisite: 302S or consent of instructor.

**480S-3 Traffic and Driver Education Program Development.** Acquaints students with curriculum innovation, current philosophy, learning and teaching theories, and instructional designs. Students will develop learning packages and modules. Prerequisite: 443S or consent of instructor.

**481S-3 Traffic and Safety Education – Evaluation Techniques.** Emphasizes method of evaluation as applied to traffic and safety education programs. Prerequisite: 480S or consent of instructor.

**483-3 Community Health Administration in the United States.** Background and development of community health administration structures in the United States; the dynamics and trends evolving from current health and medical care programs and practices.

**485-3 International Health.** Health beliefs, values, and practices of peoples in various cultures as related to a total way of life of potential value to both prospective teachers and students in other fields.

**488-3 Environmental Dimensions of Health Education.** Application of the principles of learning to understanding people interacting with their environment. Emphasis placed upon individual and community responsibilities for promoting environmental health. Rural and municipal sanitation programs and practices are included.

**489-3 Introduction to Vital Statistics.** An introduction to bio-statistics; examination of theories of population projections; collection, organization, interpretation, summarization, and evaluation of data relative to biological happenings with emphasis on graphic presentation.

**490-2 to 6 Field Experiences in School, Community Health or Safety Education.** Field observation, participation, and evaluation of current school or community health education or safety programs in agencies relevant to student interests. Prerequisite: consent of instructor.

**491-3 Health Teaching/Learning: School and Community.** Teaching and learning strategies at secondary school levels and in other community group settings. Opportunities to examine and observe a variety of educational strategies applicable to health education.

**495S-3 Driver Education for the Handicapped.** Methods and techniques in the use of assistive equipment and program materials for teaching handicapped persons how to drive. Prerequisite: advanced standing or consent of instructor.

**496-4 Industrial Hygiene.** Provides a background in the recognition, evaluation, and control of toxic materials and hazardous physical agents in the work environment. Prerequisite: consent of instructor.

**499-3 Rx: Education in Health Care Settings.** Designed for members and potential members of the health care team to explore educational concepts and strategies applicable to a variety of health care settings. Includes rights and responsibilities of consumer and professional, determi-



nants of health behavior, contrasting models of health care, communication skills, media and materials and planning, implementing and evaluating educational programs. Open to medical and dental personnel, nurses, health educators, dietitians, therapists, pharmacists, social workers, and related professionals.

**500-3 Community Organization for Health Education.**

**510-3 Curriculum in Health Education.**

**511-3 Health Education Conference Practicum.**

**515-3 Review of Current Literature in Health Related Fields.**

**520-3 Special Projects in Health Education.**

**526-3 Evaluative Approaches to Health Education.**

**530S-3 Research in Traffic Safety.**

**533A-4 Foundations of Health Education I.**

**533B-4 Foundations of Health Education II.**

**536-3 Professional Preparation in Health Education.**

**540-2 Health Facilities Management.**

**541-3 Issues in Health Care.**

**550S-3 Current Developments in Traffic and Safety Education.**

**555S-3 Traffic Safety Management.**

**572-3 Coordination and Supervision of School Health and Safety Programs.**

**590-8 Practicum in Community Health.**

**592-8 Practicum in Safety and Industrial Health.**

**597-2 (1, 1) Seminar in Health Education.**

**598-3 Institute: Writing Research Proposals.**

**599-1 to 6 Thesis.**

**600-1 to 32 (1 to 16 per semester) Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Higher Education

(SEE EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION)

## History (Department, Major, Courses)

A major in history consists of thirty-three semester hours of history courses in addition to general education requirements. Students who plan advanced study in preparation for college teaching or other professional work are advised to take added work.

A number of different patterns are available for students anticipating various futures. Students should consult with departmental advisers to choose the pattern that fits their needs. The basic regulation is that, for a course to count toward the major, it must be approved in advance by one of the advisers in the department. Normally the department will accept a substantial part of the credits in history taken in other accredited institutions. In every case, transfer students must have taken at least 18 semester hours in history at Southern Illinois University.

Advisers are available in the Department of History to assist students in planning their programs in accordance with current University and departmental regulations. Normally courses must represent at least two areas of history (United States, European, and Third World) and should be distributed chronologically as well as geographically. Students must also complete a minimum of four courses at the 400 level and they must write a research paper in history.

All history majors should meet with the department's undergraduate advisers each semester to keep up to date the records of their progress toward the degree and to receive advance approval of their courses. Transfer students should report to the department prior to their first semester of attendance. A C average in the major is required for graduation. A 2.5 average in the major is required before student teaching will be approved by the department.

Students with exceptional scholarly promise may be invited into the departmental honors program which begins with a colloquium and continues with an

honors seminar and thesis prepared under the direction of a member of the department. Graduation with departmental honors in history is given to those who successfully complete the program.

### **Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See page 94)</i> .....	(4) + 8-14
<i>Requirements for Major in History</i> .....	(3) + 33 <sup>1</sup>
History 205a,b or equivalent .....	6
History 300 and GE-B 301 or equivalent .....	(3) + 3
History 492, 493, 494, or 495 .....	1-4
History electives, distributed in two fields of history .....	20-23
<i>Electives</i> .....	28-34
These may include 28 hours in professional education for teacher certification. <sup>2</sup>	
<i>Total</i> .....	120

### **Bachelor of Science Degree, College of Education**

<i>General Education Requirements</i> .....	45 <sup>2</sup>
<i>Requirements for Major in History</i> .....	(3) + 33 <sup>1</sup>
History 205a,b and two additional world history courses <sup>3</sup> .....	12-14
History 300, GE-B 301 and three additional U.S. history courses .....	(3) + 11-13
History 492, 493, 494, or 495 .....	1-4
History electives .....	2-9
<i>Professional Education Requirements</i> .....	28
See Teacher Education Program, page 83.	
Curriculum, Instruction, and Media 469 is required.	
<i>Electives</i> .....	14
<i>Total</i> .....	120

<sup>1</sup>At least twelve hours must be taken at the 400 level.

<sup>2</sup>Students in the College of Liberal Arts seeking teacher certification should select courses in the major as described under the College of Education.

<sup>3</sup>World history study should include at least three hours other than European and U.S. history.

### **Minor**

A minor in history consists of 16 semester hours. The student is advised to balance courses between at least two of the three fields of American, European, or Third World history. Transfer students, in order to have a minor in history, must have taken at least eight semester hours in history at Southern Illinois University.

### **Courses**

**200-3 Problems in the History of World Civilization.** Seminar focusing on selected topics in world history. Prerequisite: University Honors Program status or consent of instructor.

**205-6 (3, 3) History of Western Civilization.** (a) From ancient times through the sixteenth century; (b) The seventeenth century to the present. A brief survey of the major developments and trends in European history from ancient times through the 20th Century.

**300-3 The Origins of Modern America, 1492-1877.** A general survey of political, social, and economic development of the United States from 1492 to 1877.

**303-1 to 3 Topics in Comparative History.** A comparative study of recurring themes in the history of diverse societies and civilizations. Topics will vary and will be announced in advance. Topics to be covered include the problem of slavery, technology and society, war, and civilization.

**310-4 Ancient Civilizations.** A comparative study of ancient near eastern and classical civilizations of the Fertile Crescent and the Mediterranean Basin: Mesopotamia, Egypt, Palestine, Greece, and Rome.



**313-4 Great Ideas in History: Ancient Greece to Early Modern Times.** An introduction to the ideas and culture of western civilization over a period of two thousand years, from the ancient Greeks to the Reformation. The great ideas in philosophy, religion, political theory, and other literature are stressed, and attention given to related trends in painting, sculpture, architecture, and music. Slides of art work are shown and tapes of music are played.

**315-4 Mediaeval Europe.** The emergence of Europe from the Age of Constantine to the Black Death, with emphasis on the political, socio-economic, and cultural forces which were at work creating Europe.

**320-4 Early Modern Europe.** The development of Europe from the 16th Century through the Age of the French Revolution.

**323-3 History and Artistic Creativity.** A selected exploration of the specific conditions in Western history, from the Renaissance to the present, which have encouraged and given direction to creativity in the arts.

**324-3 Women in European Society: 1600 to Present.** The legal, social, economic, and political position of women in European society during the past 350 years are examined against the backdrop of industrialization, political democratization, world wars, and totalitarianism. How women participated in, reacted to, and were affected by this transformation are the major themes of the course. Contemporary writings as well as historical works will be utilized.

**325-3 Europe Since 1815.** The development of Europe from the Age of the French Revolution to the present day.

**330-6 (3, 3) English History.** (a) England to 1688; (b) England since 1688. Political, social, economic, and cultural history of England.

**336-3 Fascist Dictatorships in Contemporary Europe: Italy, Germany and Spain.** Mussolini's fascism, Hitler's national socialism, and Franco's falangist authoritarianism in historical context. Prerequisite: sophomore standing or consent of instructor.

**338-3 Eastern Europe.** An historical survey of the East European area from the Baltic to the Balkans, with emphasis on the modern era.

**339-3 Contemporary Soviet Civilization.** Developments in the Soviet Union since World War II, with coverage of similarities and dissimilarities of the U.S. and the USSR, their conflict and cooperation. Discussion of Soviet cultural minorities and the stature of the Soviet Union in the Third World.

**350-2 The Revolution and the Constitution.** A study of the conflicting forces which produced the American Revolution, led to the creation of the federal union and shaped the early republic.

**354-3 The United States Since 1945.** America enters the atomic age; a study of American society since the end of the Second World War and the role played by the United States in the world.

**355-2 to 3 The Radical View in American History.** A study of American radicalism from the revolution to the present.

**361-3 Race and History in the United States.** (Same as Black American Studies 360.) This account of racial attitudes and race relations begins with the 16th century European racial experience and covers subsequent developments in the U.S. to the present time. The problem of race is treated in its several dimensions, but principal emphasis falls upon the historical consequences of Caucasian confrontations with blacks, Hispanics, and native Americans.

**362-6 (3, 3) Black American History.** (Same as Black American Studies 311.) (a) Black American history to 1865; (b) black American history since 1865. The role of blacks and contribution in the building of America and their ongoing fight for equality.

**364-3 The Great Depression in the United States.** Causes and effects of the Great Depression and of governmental measures for relief, recovery, and reform during the years 1929-1942.

**365-3 History of Social Welfare in America.** Discussion of the changing attitudes and problems which Americans have applied to the problems of social welfare from the colonial period to the present. Focuses on the condition of the poor, the attitudes toward the poor, and the institutions, public and private, which were created to meet the obligations of social welfare.

**366-2 to 3 American Indian History.** A comprehensive history of American Indians from prehistoric times to the present.

**367-3 History of Illinois.** The history of the state from 1818 to the present.

**368-3 Women in American History.** Covers the role of women in colonial society, the impetus for an organized women's rights movements in the 19th century and how it related to general reform movements, and gains and setbacks in the industrial-urban society of the 20th century.

**369-3 History of the American Family.** A survey of the American family from its origins to the present, focusing on the variety of families – English, African, later immigrants, middle class, and poor. During the course students will write their own family histories, thereby applying what they have learned to their own lives.

**370-6 (3, 3) History of Latin America.** (a) Colonial Latin America. (b) Independent Latin America. An introduction to the political, economic, social, and cultural development of Latin America from Precolumbian times to the present.

**380-6 (3, 3) History of East and South Asia.** (a) China and Japan; (b) India and Southeast Asia. The first semester focuses on China and Japan from early times to the present; the second semester concentrates on India and Southeast Asia in modern times.

**385-3 Islamic Civilization.** A survey of the development of the Islamic world from Mohammed to the present. Emphasis on continuing themes of Moslem civilization and their effects in the modern world.



**387-6 (3, 3) History of Africa.** (Same as Black American Studies 314.) (a) History of West Africa. A study of West African peoples from earliest times to the present, including the era of kingdoms, the role of Islam, African-European relations, colonialism, and African nationalism. (b) History of East-Central Africa. From earliest times to the present, including migrations and kingdoms, African-Arab-European relations, colonialism, and African nationalism.

**390-3 History in Fiction.** A comparative study of fictional accounts and of analyses written by historians over selected periods or topics.

**393-3 Twentieth Century Military History.** An introduction to the problems of armed conflict throughout history with particular emphasis on the twentieth century and the transformation of warfare during the era of the World Wars. Prerequisite: sophomore standing or consent of instructor.

**395-3 Honors.** Great ideas and works of history, with discussion of conflicting interpretation of major historical problems. Prerequisite: junior standing and consent of department.

**396-2 to 8 Independent Study in Classics Program.** (See Classics 496.)

**413-3 European Rural Society, 400-1100.** Monks, priests, peasants, barons, and kings: an historical sociology of the ecclesiastical and feudal regimes which replaced classical civilization after the fall of the Roman Empire in the West.

**414-3 European Urban Society, 1000-1500 AD.** Merchants, bankers, craftsmen, lawyers, and bureaucrats: a sociological and economic analysis of the origins and development of early modern European urban institutions.

**417-4 Cultural History of the Middle Ages.** Selected problems in the development of mediaeval culture, the mediaeval universities, and the transmission of ancient ideas to the modern world.

**418-3 Renaissance.** The focus on the Renaissance in Italy and in particular on its relation to the social and economic context in which it developed. The spread of humanism and humanistic values to other areas of Europe will also be considered.

**420-3 Reformation.** Concentrates on the movement of religious reforms in the 16th Century. Emphasis on its roots in the past, particularly in earlier expressions of popular piety and to the wider social and political effects in the 16th and 17th centuries.

**421-6 (3, 3) Absolutism and Revolution: Europe 1600-1815.** (a) 1600-1715; (b) 1715-1815. The development of enlightened despotism, the rise of the revolutionary movement, and the Napoleonic period.

**422-6 (3, 3) Intellectual History of Modern Europe.** (a) 1600-1815; (b) Since 1815. The first semester will cover the Age of Reason, the Enlightenment, and Early 19th Century Romanticism. The second semester will cover the period from Marx and Darwin to the Contemporary World.

**423-3 Diplomatic History of Modern Europe.** A study of the European state system and the diplomacy of the major powers, with emphasis on events since 1870.

**424-6 (3, 3) Social and Revolutionary Movements in Nineteenth Century Europe.** (a) 1815-1871; (b) 1871-1914. Changing social and political structure of Europe caused by the impact of industrialization and the French Revolution. The consequences of these developments in terms of the emergence of new social forces and the development of movements for social and political revolution.

**425-6 (3, 3) Twentieth Century Europe.** (a) World War I to World War II; (b) World War II and after. Problems in the political, social and military history of Europe in the 20th Century.

**430-3 The British Empire-Commonwealth.** The rise of the British Empire and its subsequent development into a commonwealth of self-governing nations.

**432-4 History of France.** Social, economic, political, and intellectual evolution from mediaeval origins to the present day. French contributions to western culture.

**433-3 History of Germany.** German state and society from the Middle Ages to the present day.

**434-3 History of Scandinavia.** Denmark, Norway, Sweden, Finland, and Iceland. Related history of the Baltic and North Sea regions, from prehistoric times to the present.

**435-3 History of Modern Italy.** Italy in the 19th and 20th centuries. Emphasis is on continuing problems: the tensions between agricultural south and industrial north, Italy's role as a Great Power, and the persistence of centrifugal forces in Italian politics.

**436-6 (3, 3) History of Spain.** (a) To 1700; (b) Since 1700. Institutional, intellectual, socioeconomic, and political history from the Middle Ages to the present.

**437-6 (3, 3) History of Russia.** (a) Imperial Russia from Peter the Great to the emancipation of the serfs; (b) Russia since emancipation: modernization and revolution. The study of Russian history from Peter the Great to the present.

**440-3 Tudor-Stuart England.** England from 1485 to 1714. The social, economic and political development of Britain during the crucial two centuries from late feudal anarchy to world power.

**450-4 American Colonial History.** The discovery, settlement, and development of the colonies before the American Revolution.

**451-3 Jeffersonian and Jacksonian America, 1789-1850.** Origin and development of democratic institutions and the emergence of sectional conflict in the pre-Civil War Era.

**452-6 (3, 3) United States History 1850-1896.** (a) Civil War era; (b) the origins of modern America; reconstruction and nationalization; 1865-1896. The study of the background to the Civil War, the Civil War, Reconstruction, and the Gilded Age.

**453-6 (3, 3) Twentieth Century American History.** (a) 1896-1921; (b) 1921-1945. The history of the United States since the 1890's with emphasis upon politics, political ideas and diplomacy.

**460-6 (3, 3) Social and Intellectual History of the United States.** (a) To 1860; (b) since 1860.



The development of American society and a study of the various types of economic, social, and political thought that have influenced it.

**461-6 (3, 3) Constitutional History of the United States.** (a) To 1877; (b) from 1877. Origin and development of the American Constitution from the English background to the present time. Stress is placed on the political, social, and economic forces which influenced the American constitutional system.

**463-6 (3, 3) History of American Diplomacy.** (a) To 1914; (b) Since 1914. General consideration of American foreign policy and the emergence of the United States as world power.

**464-6 (3, 3) American Economic History.** (a) To 1869; (b) Since 1869. The growth of the American economy from the colonial period to the present. Emphasis is placed on the historical forces which influenced the American economic system.

**465-6 (3, 3) History of the South.** (a) The Old South; (b) The New South. Social, economic, political, and cultural developments of the South.

**466-6 (3, 3) History of the American West.** (a) Trans-Appalachian Frontier; (b) Trans-Mississippi Frontier. The American frontier and its impact on American society from the colonial period to the 20th century.

**470-3 Colonial Latin America: Policies and Practices.** Theory and operation of the Spanish and Portuguese colonial systems in the New World.

**471-6 (3, 3) History of Mexico.** (a) 19th Century; (b) Revolutionary Mexico. Significant political, economic, diplomatic, social, and cultural aspects of Mexican life from independence to the present time with emphasis upon the Mexican Revolutions.

**472-3 The Caribbean Area.** A history of the Caribbean from Columbus to Castro.

**473-3 Argentina and Chile.** A narrative and comparative history of these two leading Latin American nations with emphasis on the period since independence.

**474-3 Andean South America.** The political, economic, social, and cultural development of the Andean nations from pre-Columbian times to the present.

**476-3 Dictatorships in Latin America.** A political, economic, social, and military study of the domestic and international aspects of dictatorship.

**480-6 (3, 3) History of Chinese Civilization.** (a) Traditional China; (b) Modern China. The first semester provides a full coverage of traditional China and emphasis on classical philosophies, religions, historical writings, literature, arts, and science. The second semester deals with the transformation of China into the modern ages.

**484-3 History of Central Asia.** Tribes, migrations, wars, and power politics in Central Asia and outlying areas of China from Han times through 19th century rivalries to latest developments along the Sino-Soviet frontier.

**485-3 History of the Middle East.** A study of the Middle East from the 7th through the 16th centuries concentrating on the following major themes: the development of Islamic civilization, the mediaeval Muslim world, the disintegration of the Arab caliphate, the rise of the Ottoman Turks, and the development of the Ottoman Empire.

**490-1 to 4 Special Readings in History.** Supervised readings for students with sufficient background. Prerequisite: registration by special permission only.

**491-3 Historiography.** Writings of historians from Herodotus to Toynbee.

**492-4 Historical Research and Writing.** Methods of historical investigation, criticism, and composition. Open not only to history majors but with permission of instructor to those in other disciplines interested in history as a research tool.

**493-1 to 6 Problems in History.** Topics vary with instructor. May be repeated for a maximum of six semester hours provided registrations cover different topics. Topics announced in advance.

**494-3 Quantitative Research in History.** An introduction to the application of quantitative data and social science methods to historical research.

**495-4 History Honors.** Principles of historical method, research, and writing for senior honor students only. Not for graduate credit. Prerequisite: consent of department.

**496-1 to 9 Internship in History.** Supervised field work in public or private agencies or operation where history majors are frequently employed, such as archives and libraries, government offices, communications media, historic sites, and museums. Only three hours may be applied to the major and six hours toward the M.A. degree. Prerequisite: consent of department.

**497-3 Historical Museums, Sites, Restorations and Archives.** The historical development of the museum from the Academy, the Lyceum, and the Great Museum of Alexandria. Discussion of the museums that have developed in the last three centuries with emphasis on the United States will include historical sites such as battlefields, forts, historic buildings, restorations, historical monuments, and major archives. Field trips to some of these sites form part of the course.

**498-3 Problems of the History Museum.** Examines the general background and function of the museum in its accompanying setting with special emphasis on tasks of the individual who wishes to work in a historical museum or in an interpretative center. Given in cooperation with the University Museum. Prerequisite: consent of instructor.

**515-3 to 6 (3, 3) Studies in Mediaeval and Renaissance History.**

**516-4 to 8 (4, 4) Seminar in Mediaeval and Renaissance History.**

**520-3 to 6 (3, 3) Studies in Early Modern European History.**

**521-4 to 8 (4, 4) Seminar in Early Modern European History.**

**522-3 to 6 (3, 3) Studies in Modern European History.**

**523-4 to 8 (4, 4) Seminar in Modern European History.**

530-4 Seminar in English History.  
 550-4 Seminar in American Colonial History.  
 551-4 The Age of Jefferson.  
 552-4 Reform Movements in the Pre-Civil War Period.  
 553-4 Seminar in Twentieth Century United States History.  
 554-4 New Viewpoints in American History.  
 555-4 to 8 (4, 4) Seminar in American History.  
 561-4 Seminar in American Constitutional History.  
 566-4 Seminar in American Frontier History.  
 567-4 Seminar in Illinois History.  
 570-4 to 8 (4, 4) Seminar in Latin American History.  
 580-4 Seminar in Modern China.  
 590-1 to 8 (1 to 3 per semester) Readings in History.  
 591-2 to 5 Independent Investigation.  
 593-4 Seminar in Contemporary History.  
 599-1 to 6 Thesis.  
 600-1 to 30 (1 to 16 per semester) Dissertation.  
 601-1 to 12 per semester Continuing Research.

## Home Economics Education

(SEE VOCATIONAL EDUCATION STUDIES)

## Human Resources (College, Courses)

### Courses

**201-3 Introduction to Human Services Management.** Provides an introduction to the administration and management of human services organizations. Examines the direction/supervision of non-profit human services.

**258-1 to 30 Work Experience Credit.** Credit for work experience relevant to the particular departmental programs: prior to entrance into the University; work experience incorporated into instructional programs through internship; cooperative work experience programs between the department and the Office of Student Work and Financial Assistance. Credit hours to be granted to be determined by the division director.

**259-1 to 24 Occupational Education Credit.** Credit for educational experiences in technical schools and institutes, junior college technical and occupational programs and employee training relevant to the particular departmental programs. Credit hours granted to be determined by the division director.

**301-3 Human Services Program Management.** Provides a multi-disciplinary approach to cases/problems in human services administration/management.

**305-1 to 4 College of Human Resources Honors Seminar.** Readings and group discussions in areas of current interest. Prerequisite: junior standing, GPA of 3.0 overall.

**387-1 to 6 College of Human Resources Special Problems-Honors.** Directed study in specialized problems associated with human resources. Prerequisite: junior standing. GPA of 3.0 overall.

## Industrial Technology (Major, Courses)

The industrial technology major has as its objective the training of qualified personnel who can develop and direct the production and distribution of products. There are two specializations: manufacturing technology and mining technology.

It is a management-oriented technical curriculum built upon a balanced program of studies drawn from a variety of disciplines related to manufacturing or mining. Included are a sound knowledge and understanding of materials, production processes, technical management, and human relations; experiences in communication skills, humanities, and social sciences; and a proficiency level in the physical sciences, mathematics, and technical skills to permit the graduate to capably resolve technical-managerial, and production problems.

Typical courses in industrial technology include robotics, processes, computer-aided manufacturing, quality control, motion and time study, plant layout, mate-



rials handling, industrial safety, production and inventory control, mine surveying, coal analysis, and mine technology.

The industrial technology curriculum is flexible enough to provide the means whereby graduates of two-year occupational programs may obtain a Bachelor of Science degree. A graduate of a two-year industrially-oriented occupational program, such as aviation, construction, drafting, data processing, electrical, machine tool, mechanical, and mining may have an appropriate preparation to pursue a Bachelor of Science degree with a major in industrial technology.

Students with work related experience may receive credit toward the degree via Industrial Technology 258. Additional flexibility in earning credit toward the degree is provided through cooperative work experience. Cooperative work experience is available for students with provision that meaningful employment is available.

A capstone option may be available in the industrial technology major. The option is explained in Chapter 3 of this bulletin. The program is available to students holding associate degrees of at least 60 semester hours in non-baccalaureate-oriented programs or equivalent certification with a minimum grade point average of 2.25. For the industrial technology major, the associate degree or equivalent certification should be in an industry-related field. This option permits qualified students to fulfill their degree requirements by completing 60 semester hours of work approved by the capstone adviser. Each individual's program of study may differ according to the previous academic work, industrial experience, and future career plans.

The industrial technology program is accredited by the National Association of Industrial Technology. For each curriculum, a minimum of 30 hours in industrial technology courses must be taken in residence at Southern Illinois University.

**Bachelor of Science Degree, College of Engineering and Technology**

INDUSTRIAL TECHNOLOGY MAJOR – MANUFACTURING TECHNOLOGY SPECIALIZATION

The manufacturing technology specialization is designed to prepare graduates for supervisory and technical management positions in manufacturing. Curriculum requirements are broad based to enable the graduate to obtain employment in manufacturing areas such as quality control, processes, safety, methods analysis, and computer-aided manufacturing/robotics. The Capstone program feature is available for students and is described in Chapter 3 of this bulletin.

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Industrial Technology</i> .....	75
Core Requirements .....	25-26
Physics 203a,b, 253a,b .....	(6) + 2
GE-D 118 .....	(2)
Mathematics 111 .....	(3) + 2
Mathematics 140 or Industrial Technology 307 .....	3-4
Psychology 323 or Industrial Technology 240 .....	3
Computer Science 212 or Industrial Technology 270 .....	3
Industrial Technology 105, 365, 382, 465 .....	12
Specialization in Manufacturing Technology .....	49-50
Industrial Technology 208, 340, 358, 375, 390, 440 .....	18
Technical Electives .....	31-32
<i>Total</i> .....	120

INDUSTRIAL TECHNOLOGY MAJOR – MINING TECHNOLOGY SPECIALIZATION

The mining technology specialization is designed to prepare graduates for supervisory and technical positions in the mining industry. Course requirements are

specifically planned to complement the mining technology background of the community college or technical institute associate degree graduate. The Capstone program feature is available for students and is described in Chapter 3 of this bulletin.

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Industrial Technology</i> .....	75
Core Requirements .....	26
Geology 220 .....	(3)
Physics 203a,b, 253a,b .....	(6) + 2
GE-A 118 .....	(2)
Mathematics 111 .....	(3) + 2
Mathematics 140 .....	4
Psychology 323 .....	3
Computer Science 212 .....	3
Industrial Technology 105, 365, 382, 465 .....	12
Specialization in Mining Technology .....	49
Industrial Technology 320, 321, 360, 410, 420, 460 .....	18
Engineering Technology 263 .....	3
Technical Electives .....	28
<i>Total</i> .....	120

## Courses

Safety glasses, a suitable calculator, and textbooks are required for most of the following courses.

**105-3 Technical Sketching.** Basic principles of technical sketching including freehand sketching techniques, lettering, orthographic projection, pictorial sketching, auxiliary views, sectional views, dimensioning, tolerancing, fasteners, working drawing interpretation, and computer-aided drafting.

**208-3 Fundamentals of Manufacturing Processes.** Introduction to the basic processes, equipment, and material used in manufacturing. Includes plastics, metal removal, materials joining, casting, and some of the newer processes.

**209-3 Manufacturing Process Laboratory.** Laboratory experiments to familiarize the student with the theory and operation of manufacturing processes. Laboratory. Prerequisite: 208.

**240-3 First-Line Supervision.** Analysis of problems of first-line supervisors. Topics include leadership, motivation, communication, grievances, training, discipline, and group and individual effectiveness, and labor relations.

**258-2 to 30 Work Experience Credit.** Credit granted for past work experience while employed in fields related to the student's educational objective. Credit is established by departmental evaluation.

**259-2 to 60 Occupational Credit.** For occupational credit earned at junior colleges and technical institutes. Credit is established by departmental evaluation.

**270-3 Computational Methods for Industrial Technologists.** Introduces the student to a problem-oriented computer language that is used to solve relevant problems that occur in industry.

**307-3 Applied Calculus for Technology.** Applying mathematical techniques to technology problems, including the analysis, formulation, and problem solutions. Techniques of differentiation, max-min problems, and elementary techniques of integration. Prerequisite: Mathematics 111 or equivalent.

**319-2 to 16 Industrial Internship.** Industrial experience includes job skills, manufacturing processes, technical information, and labor-management relationships with supervised instruction, conferences, and examinations. Prerequisite: consent of instructor. Mandatory Pass/Fail.

**320-3 Surface Mining Operations.** The elements of surface mining, methods and equipment, surface mine terminology, pit development, and equipment selection. Field trips. Prerequisite: appropriate background.

**321-3 Underground Mining.** Study of terminology, mining methods, equipment selection, ventilation, haulage, coal handling, and safety parameters associated with underground coal extraction technology.

**330-1 Current Mining Problems.** Guest lecturers provide timely information on current mining technology problems. Special investigations of mining techniques. Emphasis on state and federal regulations.

**340-3 Computer-Aided Manufacturing.** Introduction to the use of computers in the manufac-



ture of products. Includes the study of direct and computer numerical control, part processing, and industrial robots. Prerequisite: 208, computer programming or consent of instructor.

**341-3 Maintenance.** Principles and practices of maintenance department organization, preventative procedures, and typical equipment problems. Also, includes related topics such as plant protection, custodial services, and maintenance of power plants.

**351-3 Industrial Metrology.** Methods and equipment of industrial measurement and inspection. Includes 3-D measuring machines, lasers, and non-destructive testing.

**358-3 Materials Handling and Plant Layout.** Methods and equipment of materials handling. Plant layout techniques. Students are assigned a plant layout project. Prerequisite: 382 or Administrative Science 318, or consent of instructor.

**360-3 Mine Production and Inventory Control.** Study of mine production and inventory control through the exploration, development, and production phases. Includes topics in planning, process control equipment, scheduling, inventory control, and cost analysis.

**362-3 Industrial Packaging.** Analysis of packing principles, equipment, and processes such as paper, glass, metal containers, and plastics.

**365-3 Quality Control.** Analysis of control charts, acceptance sampling procedures, inspection systems, reliability and quality experiments.

**375-3 Production and Inventory Control.** Production and inventory control systems. Includes topics in forecasting, master production scheduling, material requirements planning, capacity requirements planning, inventory management, production activity control, and applicable operations research techniques.

**382-3 Motion and Time Study.** Principles and practices of motion and time study including process charts, operation charts, motion summary, and time standards.

**385-3 Purchasing.** Provides a comprehensive knowledge of modern procurement practices and policies. It combines analysis of the fundamental purchasing principles with analytical descriptions of the latest developments and techniques.

**390-3 Cost Estimating.** (Same as Engineering Technology 390.) Study of the techniques of cost estimation for products, processes, equipment, projects, and systems. Prerequisite: Mathematics 111.

**395-3 Technology Design.** An elective project on a technical subject selected by the student with advice from the instructor. Stimulates original thought and creativity. Prerequisite: consent of instructor.

**410-3 Mining Reclamation.** Study of reclamation techniques associated with underground and surface coal mining. Emphasis is placed on the integration and cost trade-offs associated with coal extraction and reclamation as well as federal, state, and local regulations. Prerequisite: consent of instructor.

**420-3 Coal Preparation and Analysis.** Study of coal preparation and blending in association with coal analysis. Design and operation of preparation plants including water management, waste management, coal storage, loading, and transportation.

**425-3 Advanced Process Design and Control.** Extension of other process courses offered. Meets the need of those students who enter the field of manufacturing by giving more emphasis on planning, estimating, and control of industrial processes. Laboratory. Prerequisite: 309, 310.

**430-3 Health and Injury Control in A Work Setting.** (Same as Health Education 430.) Assesses the health and injury control programs present in a work setting. Emphasis given to employee programs in health, wellness, and injury control that are effective. Field trips to work sites are included.

**439-3 Bulk Materials Handling.** Study of the various types of equipment used in the mining industry. Estimation of costs and output of equipment used for excavating and transporting earth materials. Prerequisite: appropriate background.

**440-3 Manufacturing Policy.** Review of all areas covered by the industrial technology program. Includes problems for solution which simulate existing conditions in industry. Students present their solutions to the class and to the instructor in a formal manner. Prerequisite: 358, 365, 375, 382, or consent of instructor.

**441-3 Mine-Safety Technology.** An in-depth study of the technological implications of the Federal Coal Mine Health and Safety Act. Emphasis is placed on the technology required to operate safely underground coal mines. Prerequisite: appropriate background.

**450-3 Industrial Systems Analysis.** Teaches the systems required for successful industrial operations. The role of the computer in system design and application is emphasized.

**455-3 Industrial Robotics.** Study of industrial robots and their applications; pendant and numerical programming of robots. Robotics design including tactile and visual sensors. Technical and psychological problems of justification, installation, and management of robotic systems. Prerequisite: 340.

**460-3 Mining Technology.** A capstone course to include all aspects of coal mining. Group projects are assigned on the design and development of a mine with emphasis on cost, productivity, yield, equipment, and staffing. Prerequisite: 320, 321, 420, or consent of instructor.

**465-3 Industrial Safety.** Principles of industrial accident prevention; accident statistics and costs; appraising safety performance; recognizing industrial hazards and recommending safeguards. Includes a study of the Occupational Safety and Health Act and the Coal Mine Health and Safety Act. Prerequisite: senior standing.

**466-3 Occupational Safety and Health Standards.** Covers the standards, inspection procedures, and compliance requirements covered in the latest revisions of the Occupational Safety and Health Act of 1970. Emphasis is placed on developing the student's ability to detect violations of the standards and recommend corrective safety actions.

**492-1 to 6 Special Problems in Industry.** Special opportunity for students to obtain assistance and guidance in the investigation and solution of selected industrial problems. Not for graduate credit. Prerequisite: consent of instructor.

**494-1 to 12 (A-L-1 hour each) Applied Project.** Selected applied project. Requires the students to apply knowledge learned in various courses to the solution of industrial problems. (a) Motion and time study, (b) cost estimating, (c) materials handling and plant layout, (d) production and inventory control, (e) quality control, (f) manufacturing policy, (g) industrial systems analysis, (h) fundamentals of industrial processes, (i) industrial safety, (j) analytical problems in technology, (k) computer-aided manufacturing, (l) industrial metrology. Not for graduate credit. Prerequisite: consent of instructor.

## Interior Design (Major, Courses)

The interior design program is a part of the Division of Graphic Communication, School of Technical Careers.

The interior design curriculum is planned to assist students in preparing to serve the interior design and architectural professions in the areas of public building, commercial, and residential planning. This includes spatial concepts, interior systems, office landscape, traffic and communication, and human factors. An in-depth understanding of the relevancy of the curriculum to the profession is given the students through lectures and critiques by visiting interior designers, architects, and adjunct professors.

Employment opportunities exist in interior design studios and architectural firms; in major corporations as in-house planners and designers and in various retail organizations and furnishing manufacturers.

The interior design program is accredited by the Foundation for Interior Design Education Research.

The program provides the faculty, studios, and as many other facilities as possible, but all other costs including supplies, equipment, and required field trips that are necessary to the successful completion of the program are borne by the student. Interior design education is relatively expensive, and because of the individual nature of the creative laboratory work, it is impossible to predict the exact cost for each student. A reasonable estimate of initial cost would be \$250 for equipment, supplies, and books. Much of this equipment is non-expendable but there will be additional supply costs for other courses in the program.

### Bachelor of Science Degree, School of Technical Careers

<i>General Education Requirements</i> .....	45
GE-C 205 required; Art 207 must be taken as approved substitute in GE-C	
<i>Requirements for Major in Interior Design</i> .....	75
GE-C 205 .....	(3)
Art 120, 207 .....	(3) + 3
School of Technical Careers 215a,b .....	6
Vocational Education Studies 335 .....	2
Interior Design 111, 112, 142, 221, 222, 234, 242, 262, 334, 351, 363, 383, 384, 391, 392, 406, 462, 471, 493, 495, 496 .....	61
Professional Elective .....	3
<i>Total</i> .....	120

<sup>1</sup>GE-C 205 also meets a requirement in General Education.



## Courses

**111-3 Elements of Interior Design.** Introduction to the elements of design: line, form, light, color, and textures through the application of purposeful experiments in 2D/3D relationships of form and space and the interrelationships of color and texture as revealed by light. Lecture and studio. To be taken concurrently with Art 110 and School of Technical Careers 215a.

**112-3 Principles of Interior Design.** Introduction to the principles of design: balance, rhythm, unity, emphasis, and scale/proportion through the perspective of historical and current examples in various design areas. Lecture. Prerequisite: 111 or consent of coordinator.

**142-3 Architectural Detailing.** Study of construction methods and materials of buildings and standard graphic methods of communication of this information from the point of view of how things go together. Focus is on wood frame construction. Lecture and studio. Prerequisite: School of Technical Careers 215a or consent of coordinator.

**221-2 Sketching Concepts.** The exploration of freehand drawing as a means to communicate concepts and ideas through experimentation with pen and ink, marker, and colored pencils. Lecture and studio. Design 200 may be taken as a substitute with the consent of the coordinator. Prerequisite: 112, Art 110, GE-C 205, or consent of coordinator.

**222-3 Interior Design Presentation.** Methods, materials, and media are explored to find the most satisfactory way to present interior designs to clients. Lecture and studio. Prerequisite: 221 and School of Technical Careers 215b or consent of coordinator.

**232-2 Electronic Technology.** Survey of the current electronic technology either for which or with which interior design is executed. Lecture. Prerequisite: 142, Computer Science 202, or consent of coordinator.

**234-2 Materials and Finishes.** A study of materials and finishes other than those of a structural nature, including production methods, limitations, quality control, application, and uses. Lecture. Prerequisite: to be taken concurrently with 242 or consent of coordinator.

**242-3 Interior Architectural Detailing.** Study of methods and materials of interior construction and graphic methods of communication of this information from the point of view of how things go together. Focus is on commercial and contract interiors. Lecture and studio. Prerequisite: 142 or consent of coordinator.

**262-2 History of Interior Design I.** Summary of interiors, their furnishings, and buildings from antiquity to the 19th Century from the point of view of socio-economic, psychological, and philosophical rationales. Lecture. Prerequisite: Art 207 or consent of coordinator.

**331-3 Textile Design.** Study of textile design and hand printing methods in textile production including block print, silk screen, batik, and tie dye. Simple weaving techniques. Lecture and laboratory. Prerequisite: 131, or 231, or consent of instructor.

**334-2 Interior Architectural Systems.** Study of interior architectural mechanical equipment as it relates to the proximate environment. Emphasis is on heating, cooling, plumbing, and electrical systems with the attendant governing building codes. Lecture. Prerequisite: 242.

**351-3 Interior Design Programming I.** Methods for data gathering and analysis of project information from preliminary design stage. Lecture and studio. Prerequisite: junior standing with interior design major or consent of coordinator.

**363-2 History of Interior Design II.** Survey of interiors, their furnishings and buildings from the 19th century to the present from the point of view of socio-economic, psychological, and philosophical rationales. Lecture. Prerequisite: 262 or consent of coordinator.

**371-1-6 Professional Internship.** Supervised internship in interior design providing professional development of the intern through actual working conditions. Prerequisite: interior design majors within four semesters of graduation and consent of coordinator. Mandatory Pass/Fail.

**383-3 Furniture Design and Fabrication.** Study of furniture through evaluation, shop drawings, and actual construction. Issues include ergonomics, quality of materials, and methods of construction. Lecture and studio. Prerequisite: 234, 242, Vocational Education Studies 335, or consent of coordinator.

**384-2 Lighting Design.** Study of lighting as a major tool in designing interior spaces through actual problem solving. Emphasis is on task, ambient, and speciality lighting. Lecture and studio. Prerequisite: 222 and 242.

**391-4 Interior Design I.** Interior design of the personal environment at the individual level where client/owner and client/user are synonymous. Lecture and studio. Prerequisite: 222, 234, 242, or consent of coordinator.

**392-4 Interior Design II.** Interior design of the environment at the group level when client/owner and client/user are different. Emphasis is on public access spaces: e.g., restaurants, stores, museums. Lecture and studio. Prerequisite: 383, 391, or consent of coordinator.

**406-3 Portfolio and Resume.** An investigation and implementation of planning, production, and management of interface information such as resume and presentation of self and portfolio. Not for graduate credit. Prerequisite: senior standing or consent of coordinator.

**462-3 Interior Design Seminar.** Study of the current state-of-the-art of interior design. Seminar. Not for graduate credit. Prerequisite: senior standing or consent of coordinator.

**471-3 Professional Practice in Interior Design.** Business principles of the practice of interior

design including office systems, forms, and logistics of money and materials. Lecture and seminar. Not for graduate credit. Prerequisite: senior standing or consent of coordinator.

**493-5 Interior Design III.** Interior design of the environment at the corporate or institutional level where client/owner and client/user are significantly different. Emphasis is on furniture systems, particularly in the area of office planning. Lecture and studio. Not for graduate credit. Prerequisite: 383 and 392 or consent of coordinator.

**495-1 Interior Design Programming II.** Preliminary stage of senior design synthesis project, includes project discovery, data gathering, and analysis. Not for graduate credit. Prerequisite: 351 and 392.

**496-5 Interior Design IV.** Self-initiated interior design project of large scale, complex nature. Emphasis is on synthesizing all learning to date. Lecture and tutorial. Not for graduate credit. Prerequisite: 493 and 495.

## Journalism (School, Major, Courses)

The School of Journalism prepares academically sound, technically proficient, and professionally responsible graduates for a wide range of mass communication careers. Depending on level and direction of studies, career tracks include: news-editorial and advertising work with newspapers, magazines, and other print and electronic news media; community and suburban journalism; creative and administrative advertising agency positions; public relations; and research. The journalism major also provides well-balanced preparation for graduate studies in mass communication, public affairs, the social sciences, and law.

The School of Journalism is accredited by the Accrediting Council on Education in Journalism and Mass Communication, the agency formally recognized by the Council on Postsecondary Accreditation and the U.S. Office of Education. The news-editorial specialization also holds Accrediting Council on Education in Journalism and Mass Communication sequence accreditation.

Early in the junior year the student must decide upon one of the specializations described below or obtain approval of a faculty sponsor and the school's director for another coherent combination of courses tailored to individual interest from the general requirements of the School of Journalism.

### Bachelor of Science Degree, College of Communications and Fine Arts

The academic requirements for the Bachelor of Science degree in journalism include 30 to 36 hours in journalism as approved by the School of Journalism and 26 to 30 hours in junior-senior level course work in the College of Liberal Arts, the College of Science, or other areas approved by the faculty.

Students will also complete a 15-hour minor in an area approved by the School of Journalism. The minor must be declared by the time the student has accrued 90 semester hours. Students who select a minor within the College of Liberal Arts may include those hours in their 26-30 senior level hours.

While most students are best served by one of the following specializations, other programs of study in the major may be designed to meet special needs. Individualized programs might address such student interests as mass media management, agricultural journalism, international communication, mass media institutions, and communication research. Such a specialized program of study must be sponsored by a journalism faculty member and approved by the director. Supervised readings in journalism and related courses in other departments may be required. Journalism courses are chosen from the general requirements for the major: survey of mass communication (300); one basic writing course (309 or 310); two intermediate skills courses (311 or 370 and 312, 413, or 372); two advanced skills courses (360, 374, 390, 391, 411, 413, 461, 462, 476); two 400-level non-skills courses (400, 401, 405, 442, 450, 451, 452, 479); and journalism electives to complete 30-36 hours in the major.



ADVERTISING SPECIALIZATION

Students in the advertising specialization develop abilities to analyze problems and identify the roles advertising and other communications can plan in solving them; develop tools for planning and executing advertising campaigns; and develop applied skills in verbal and visual communication. This program helps prepare students to enter a wide variety of positions with advertising agencies, in the communications media, and related fields.

NEWS-EDITORIAL SPECIALIZATION

Students in the news-editorial specialization receive realistic training in the theory and practice of identifying, gathering, processing, and interpreting information for the mass media. Areas of study include:

Newspaper: reporting, writing, editing, and management for daily, weekly, and suburban newspapers and news agencies; and news-related fields.

Magazines: writing, editing, and managing general and specialized magazines and similar publications.

Public affairs: news skills and values applied to relationships between mass media and information sources in government, business, and other institutions. Techniques, problems, and responsibilities of public information are studied.

Prospective news-editorial specialization students should consult the undergraduate journalism adviser concerning specific courses for this specialization.

<i>General Education Requirements</i> . . . . .	45
<i>Requirements for a Major in Journalism</i> . . . . .	30-36
Journalism 300 . . . . .	3
Specialization Requirements . . . . .	27-33
Advertising Specialization: 309, 370, 372, 374, 405, 476, 479, plus journalism electives to bring total to 27-33.	
News-Editorial Specialization: 310, 311, 312, 442; two of 390, 411, and a choice of 391 or 462; one of 400, 401, 405, 450, 451, 452, 479, plus journalism electives to bring total to 27-33.	
<i>Minor</i> . . . . .	15
<i>Approved non-journalism electives</i> (Must include Marketing 304 for Advertising Specialization) . . . . .	26-30
<i>Total</i> . . . . .	120

Other Requirements

Journalism students must demonstrate typing ability of 30 words per minute by receiving a passing grade in a typing course or on an examination given by the School of Journalism before registering for Journalism 309 or 310. Those who cannot meet this requirement must enroll in a typing course and receive a grade of C or better.

A journalism major may enroll in a journalism course only after receiving a grade of C or better in any prerequisite course.

Fees will be assessed for supplies and materials in some courses. Students should inquire about amounts before registering.

Subject to the approval of the school's director, undergraduate students may receive as much as nine hours of journalism credit toward their degrees for courses not taken in residence.

Minor

A total of 15 hours of journalism courses constitutes a minor for nonjournalism majors.

## Courses

**160-3 Mass Communication in Society.** Acquaints non-journalism students with the history and development of the American mass media. Examines media roles in society, potential for development, weak points, and the roles consumers can and should plan regarding the media.

**300-3 Mass Media in Modern Society.** Develops an awareness of the pervasive nature of the mass media in our society and an understanding of how the media operate, with emphasis on contemporary social and economic problems in the media.

**309-3 Advertising Copywriting.** Study and application of the principles of writing the verbal elements of advertising messages. Types of advertising include the following: retail, fashion, mail-order, catalog, direct-mail, trade and industrial, and outdoor. Students learn to write for both print and broadcast media. Prerequisite: successful completion of language skills examination.

**310-3 Writing for the Mass Media.** Study in the fundamentals of news writing, the techniques of news gathering and reporting, and the principles of editing with experience in the gathering, writing, rewriting, and editing of news copy. Prerequisite: typing speed of at least 30 words per minute and successful completion of the language skills examination.

**311-3 Reporting and News Writing.** Purposes and effects of different orientations to the information gathering and news writing processes; information sources, interviewing, writing, and editing practices; laboratory in reporting, writing, and editing for the news media. Prerequisite: 310 and satisfactory score on language skills examination.

**312-3 Editing and Makeup.** Principles of editing are combined with graphic concepts and techniques which interrelate printing processes, photography, writing of cutlines, picture page preparation, and page makeup, copyfitting, head schedules, newspaper organization, and the work flow on the ad and editorial sides. Prerequisite: 311.

**313-3 Introduction to Photojournalism.** Fundamentals of publications photography. Includes basic camera technique, black and white film and print processing methods, selection and display of photographs, and evaluation of pictorial communication effects. Student supplies own photographic materials and, where possible, an adjustable camera. Prerequisite: consent of department. Open only to journalism majors. Students are responsible for purchase of supplies.

**315-3 Graphic Communication.** History of printing and typographic development, modern reproduction processes, technological developments, selection and use of appropriate graphic images in communication, and production techniques for publications. Students are responsible for purchase of supplies.

**340-3 Publicity Methods.** Guidance and practice in writing for newspapers, magazines, and broadcast media about students' fields of specialization. Includes practical work as publicist for university and community groups. Non-majors only. Closed to students who have passed 310 or Radio-Television 310.

**341-3 Public Relations.** Current methods of planning and executing public relations policies, evaluating the media, and preparing campaigns. Promotional tools and press relations.

**350-3 Community-Suburban Journalism.** The small newspaper recognized as a distinct medium, performing a specialized function for its readers. Equal weight given to the problem of news presentation and to leadership with careful examination of news and editorial policies of representative newspapers. Prerequisite: 311.

**351-3 Community Newspaper Management.** Organization, operation, and policy of the revenue departments of the community and suburban weekly and small daily newspapers with special attention to the circulation procedures, retail, general and classified advertising problems, and other phases of management. Prerequisite: 350.

**360-3 Magazine Production and Design.** The editorial and production functions of the magazine. Application of the principles of article and art layout to total editorial content. Printing production and selection of materials.

**370-3 Principles of Advertising.** An introduction to the processes of advertising and their functions in a marketing-communications environment; includes research, media, and message elements of advertising campaigns, governmental regulations, and social and economic considerations.

**372-3 Advertising Media and Management.** Analysis of economic, social, and marketing factors and their use in developing advertising objectives and strategies. Examination of mass media systems as vehicles of advertising communication and the planning, buying, and scheduling of advertising media programs. Prerequisite: 370, Marketing 304.

**374-3 Creating Advertising Messages.** Examination and practice in the development of advertising message strategies and the writing and design of advertising messages for television, radio, newspaper, magazine, outdoor, direct mail, etc. Students are responsible for purchase of supplies. Prerequisite: 309, 370, and satisfactory score on language skills examination.

**390-3 Critical and Persuasive Writing.** The roles and responsibilities of the editor, editorial writer, and opinion columnist with emphasis upon editorial writing and critical thinking. Editorial problems, methods, policies, style, and the fundamentals of persuasion and attitude change form the basis for study. Prerequisite: 311.

**391-3 Feature Writing.** Identification, research, and application of creative writing techniques with emphasis on newspaper articles. Analysis of reader appeal; study of feature story structure; development of style by practice in writing feature stories. Prerequisite: 311.



**392-3 Reporting for Electronic Media.** Researching, writing, and producing local news and public affairs presentation for CATV systems. Prerequisite: 310.

**400-3 History of Journalism.** Development of American newspapers, magazines, and radio-television with emphasis on cultural, technological, and economic backgrounds of press development. Current press structures and policies will be placed in historical perspective.

**401-3 International Communication.** An analysis of the development, structure, functions, and current status of media systems in other countries. Emphasis given to studying factors that facilitate or restrict the flow of intranational and international communication.

**405-3 Introduction to Mass Communication Research.** Overview of communication research methods including practical training in interpretation and presentation of social science data. Introduction to survey research methods, experimental design, and use of computers for analysis of data. Presentation of data in journalistic forms and social science reports. Not for graduate credit. Prerequisite: 309 or 310 or consent of instructor.

**411-3 Public Affairs Reporting.** Covering government and other public agencies, including the city hall, courts, county offices, business, finance, agriculture, labor, and other specialized beats. Prerequisite: 311.

**413-3 Picture Editing.** Introduction to the need for and function of picture editors for newspapers and magazines. Practical experience in picture selection, cropping, sizing, caption writing, and layout design. Legal and ethical considerations. Assignment procedures for photographers and other illustrators. Library systems for negatives, prints, and other illustrations. Prerequisite: senior standing.

**442-3 The Law of Journalism.** Legal limitations and privileges affecting the mass media to include the law of libel, development of obscenity law, free press and fair trial, contempt of court, right of privacy, advertising and antitrust regulations, copyright, and access to the press. Prerequisite: senior standing.

**450-3 Mass Media Management.** Basic economic and management theory and application of theory to the management process in the mass media. Individual projects involving analysis of management of a selected medium. Prerequisite: consent of instructor.

**451-3 Current Media Problems.** Readings and weekly seminar discussions on the role of the journalist in seeking solutions to the problems facing the mass media in the last third of the Twentieth Century. Involves questions of economics, structure, ethics, effects.

**452-3 Ethics and News Media.** An exploration of ethical problems confronting journalists and an evaluation of how these problems are handled by the media through a focus on current examples. The implications to the media and to society of successes and failures in meeting ethical concerns are discussed. Prerequisite: senior standing.

**461-3 Specialized Publications.** Functions, operations, and problems of industrial, trade, business, professional, literary, and other specialized publications. Management, personnel, and production practices. Use of research in solving problems and setting policies.

**462-3 Magazine Article Writing.** Principles, problems, and techniques involved in producing free-lance and staff-written magazine articles with an emphasis on determining the relationship between article content and audience market. Prerequisite: 311.

**476-3 Advertising Campaigns.** Application of advertising principles and techniques to the solution of a specific advertising problem facing a cooperating advertiser or advertising agency; problem analysis, development of strategy, media planning, message development, campaign presentation. Prerequisite: 372 and 374.

**479-3 Social Issues and Advertising.** Analysis of social issues involving advertising; economic relationships, government and self-regulation, cultural effects, influence on media content and structure, role in democratic processes, international, and other problems and controversies. Prerequisite: senior standing.

**490-1 to 6 (1 to 3, 1 to 3, 1 to 3) Readings.** Supervised readings on subject matter not covered in regularly scheduled courses. Undergraduates limited to maximum 2 credits per semester. Prerequisite: written consent of instructor and area head.

**494-1 to 3 Practicum.** Study, observation, and participation in publication or broadcast activities. Prerequisite: consent of instructor and area head. Mandatory Pass/Fail for undergraduates.

**495-1 to 12 (1 to 6, 1 to 6) Proseminar.** Selected seminars investigating media problems or other subjects of topical importance to advanced journalism majors. Seminars will be offered as the need and the interest of students demand. Prerequisite: senior standing.

**500-3 Research Methodology in Mass Communication I.**

**501-3 Research Methodology in Mass Communication II.**

**504-3 Foundations of Mass Communication Theory.**

**505-3 Theoretical Issues in Mass Communication.**

**506-3 Significant Studies in Mass Communication Research.**

**510-3 Literature of Journalism.**

**511-3 Studies in Journalism History.**

**512-3 Press Freedom and Censorship.**

**520-3 Communication and National Development.**

**530-3 Historical Research in the Mass Media.**

**540-3 Legal and Governmental Research in the Mass Media.**

**550-1 to 12 (1 to 4, 1 to 4, 1 to 4) Topical Seminar.**

- 560-3 Seminar: Critical and Persuasive Writing.
- 592-1 to 6 (1 to 3, 1 to 3, 1 to 3) Individual Research.
- 599-1 to 6 Thesis.
- 600-1 to 32 Dissertation
- 601-1 to 12 per semester Continuing Research.

## Language Arts (English and Reading) (Major)

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Law Enforcement (Program, Major)

Law enforcement today demands a wide range of knowledge and ability to meet the complexities of modern society. This program is designed both for the individual entering the profession and for persons already serving in law enforcement who wish to upgrade their skills.

Students in this program will not be taught "police skills" that are taught in a police academy, such as firearms or personal defense. They will learn methods of crime control, criminal behavior, methods of crime detection, community problems in law enforcement, criminal law, and police administration. They will develop an understanding of people and of interpersonal relationships.

The student will spend one term prior to graduation working under supervision with a police agency.

Police officers may enroll in the program on a part-time basis with the assurance that faculty members will help them to arrange classes compatibly with their duty schedules.

Full transfer of credit is guaranteed to students who have completed certificate programs in law enforcement at cooperating community colleges.

This program is served by an advisory committee of professionals representing law enforcement, corrections, law, and private security. The program benefits from the expertise of each member as they may advise the program on courses of study relevant to the ever changing criminal justice field.

This associate degree program can be completed in two academic years at Southern Illinois University or in a combination with community college or other acceptable extra-institutional educational experience.

### Associate in Applied Science Degree, School of Technical Careers

#### Requirements for Major in Law Enforcement

GE-B 108, 202, 212 .....	9
GE-D 101, 118, 153 .....	8
Law Enforcement 103, 105, 108, 115, 205, 209, 210, 220, 221, 395.....	36
Electives .....	9
<i>Total</i> .....	62

### Courses

**103-3 Introduction to Criminal Justice.** Enables the student to understand the workings of the criminal justice system and is the foundation course for the correctional services and law enforcement programs. Upon completion of this course, the student will have an understanding of the processes from arrest through imprisonment enabling assimilation of progressive courses such as criminal law and criminal behavioral theories. Lecture three hours.

**104-3 Treatment Methods in Criminal Justice.** The general goal of this course is to introduce to the student several treatment methods utilized in the criminal justice system. The student will briefly examine several treatment modalities and will discuss transactional analysis in detail. Other course items will include participation in a treatment group and a trip to a maximum secu-



rity prison. Participation is required in many group exercises that may be scheduled at times other than regularly scheduled class time. These group exercises should help the student gain a working knowledge of treatment methods and group processes. Lecture three hours.

**105-3 Criminal Behavior.** Will enable the student to understand the psychological and sociological forces that make up criminal behavior. Upon completion of this course the student will have the knowledge to complete studies of the behavioral field in other disciplines of the University such as criminology. Lecture three hours.

**106-3 Treatment Practicum.** Will enable the successful student to apply the techniques learned in 104 in actual therapeutic settings and groups in area social service agencies and correctional institutions. Upon completion of this course, the successful student will be prepared to assist in leadership of therapeutic or treatment modalities and will have the ability to use these skills in human service agencies. Lecture three hours. Prerequisite: 104.

**108-3 Supervision in Criminal Justice.** The criminal justice supervisor's role in discipline, intradepartmental relations, problem-handling, and personnel policies. Problems relating to supervisory relationships, wages, grievances, morale, and safety. Lecture three hours.

**115-3 Interpersonal Relations in Criminal Justice.** Enables the student to develop a better understanding of people, their motivations, and their behavior patterns. A specific emphasis of this course is on individual and organizational intrapersonal and interpersonal relations. Upon successful completion of this course, each student should have developed the skills necessary for positive interaction with individuals in the free society and within a setting of incarceration. Participation in group exercises at times other than regularly scheduled class time is required. Lecture three hours.

**203-3 Introduction to Security.** An introduction to public and private security issues with a directed emphasis on industrial and retail security, loss prevention, physical security, and design.

**205-3 Criminal Investigation.** Enables the student to examine the major theories and techniques of criminal investigation. Upon successful completion of the course, the student should have an understanding of the techniques of criminal investigation and how these techniques can be applied to various types of investigations. The student should learn the value of adequate preservation, collection, and handling of physical evidence. Lecture three hours.

**209-3 Criminal Law I.** Enables the student to understand the due process functions of the criminal law. Upon completion of this course the student will be able to use a law library and will have an understanding of the laws of arrest, search and seizure, and evidence including recent Supreme Court decisions affecting daily work assignments. This course is also a foundation for Criminal Law II where the substantive law is covered. Lecture three hours.

**210-3 Criminal Law II.** Will enable the student to apply the law of due process (constitutional law) to the study of substantive law including Illinois state penal code and the Illinois Corrections Code. Upon completion of this course the student will have a working knowledge of how both the penal and corrections codes of the state enables society to successfully prosecute violators of the law. The student will also be able to brief cases pertaining to criminal and correctional law. Lecture three hours. Prerequisite: 209.

**218-3 Introduction to Corrections.** Will enable the student to develop an understanding of current problems (drugs, racial tension, subcultures) in correctional institutions; foundation of corrections in America; effect of recent court decisions and inmate population on correctional institutions; relationship of correctional services to the criminal justice system. Lecture three hours.

**220-3 Probation, Parole, and Community Based Corrections.** Will enable the student to understand the concept of alternatives to incarceration. The benefits and workings of probation and parole will be examined and the student will be exposed to the casework method utilized in these areas. The student will learn of alternatives to incarceration that are community based and of the need for community involvement and support for these efforts. Lecture three hours. Prerequisite: 103.

**221-3 Police Administration.** Principles of organization and modern management as applied to law enforcement agencies. The course will provide the student with an introduction to organizational theory, organizational behavior and administration. Special attention will be paid to the objectives of police operation and some of the factors lying ahead in the field of police administration. Lecture three hours. Prerequisite: 103 and 108.

**271-3 The Security Survey: Loss Prevention Applications.** Emphasis is to identify various operations within a retailing environment that could be enhanced when appropriate (internal/external) security and control measures are introduced. Topics to be addressed include how to identify the origins of inventory shrinkage, inventory control and management techniques, internal pilferage/theft problems, anti-shoplifting strategies, and methods to assess internal and external threats. Prerequisite: 203 or consent of instructor.

**395-9 Internship in Criminal Justice Practice.** The pre-service student will be exposed to the operations of a criminal justice agency through an eight-week internship in that agency under supervision. Upon completion of the internship the student will have been exposed to all aspects of the agency and reinforce the student's attitudes toward that particular area of criminal justice. (Internship: 40 hours per week for eight weeks.) Prerequisite: sophomore standing and fifteen hours of credit in correctional services/law enforcement courses.



## Liberal Arts (College, Courses)

### Courses

**105-3 Law in American Society.** Faculty from the Departments of Economics, History, Philosophy, Political Science, Psychology, and Sociology consider the ways in which law affects American society. Topics such as students' rights, civil disobedience, crime, obscenity, and labor-management relations will be explored through lectures, discussion groups, guest speakers, and media presentation. Recommended for students who want to explore how the law works in society, and who want to consider possible careers in law.

**303-1 to 9 (1 to 3 per semester) Interdisciplinary Studies.** Offered in a variety of forms, including lectures, readings, research, or field study. Initiated by at least two faculty members from different departments. Approval by the dean is required during the semester prior to its offering. May be repeated to equal a total of nine credits.

**310-3 Values in the Living World – Life, Normalcy, and the Natural.** Intended for students who are interested in examining individual and social values which pertain to those professions based upon the biological sciences; e.g., medicine, nursing, zoology, forestry, etc.

**311-3 Values in the Communication Arts.** The aim of this course is to examine, by means of readings, films and guest lecturers, some value perspectives of contemporary American life. This will be done in terms of ethical-aesthetic ideals and actual practices to be encountered in the public's most accessible and influential media; i.e., cinema, radio, television, and journalism.

**312-3 Applied Values in Society.** A consideration of value problems and dilemmas faced by individuals in social science-based professions such as counseling, social welfare, administration of justice, etc. Among the problems to be considered are agency or corporate loyalty vs. individual conscience; individual good vs. social good; and professional ethics vs. individual ethics.

**388-1 to 36 Study Abroad.** Provides credit toward the undergraduate degree for study at accredited foreign institutions or approved overseas programs. Final determination of credit is made on the student's completion of the work. One to eighteen hours may be earned per semester, one to nine hours may be earned for summer session. Prerequisite: one year of residence at Southern Illinois University, good academic standing, and prior approval of the major department and the College of Liberal Arts.

## Linguistics (Department, Major, Course)

The objective of the undergraduate major in linguistics is to provide broad, general training in theoretical and applied linguistics. The major is designed to help students achieve an awareness of the language systems of the past, and appreciation of human modes of communication, a fundamental understanding of the ever-changing linguistic environment in which they live, and the processes by which language is acquired. Moreover, education in linguistic methods trains a student to think analytically, to evaluate hypotheses, and to propose new solutions. The analytical models of linguistics have, since the 1930's, been recognized by other disciplines (notably anthropology, psychology, and sociology) as significant research paradigms. Linguistic theory has also been enriched by insights and models from other disciplines. Students are encouraged to use their elective hours to explore the related areas of anthropology, computer science, English, foreign languages, mathematics, philosophy, psychology, sociology, speech communication, speech pathology and audiology, and statistics.

The major in linguistics consists of a minimum of 32 semester hours comprising: (1) 16-18 semester hours in a core of basic courses in general linguistics, 300 or 401, 402a, 403 or 405, 406, 408; and (2) various structured alternatives, dependent on whether the student is more interested in theoretical or applied linguistics. Students concentrating on theoretical linguistics are advised to take 9 semester hours of 415, 440, and either 430 or 450, plus 6 or 7 semester hours of departmental electives. Students concentrating on applied linguistics are advised to take 8 semester hours of 453, 454, 455, plus 8 semester hours of 456, 415, and 445.

There is a foreign language requirement, potentially overlapping the College of Liberal Arts requirements, as follows: (1) one year of an uncommon or non-



Western language, or (2) two years of any foreign language. Students planning graduate study in linguistics should take three years of foreign language study.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> . . . . .	45
<i>Supplementary College Requirements (See page 94)</i> . . . . .	(4) + 8-14
<i>Requirements for Major in Linguistics</i> . . . . .	32
Linguistics 300 or 401, 402a, 403 or 405, 406, 408. . . . .	16-18
Theoretical Linguistics Electives: Courses selected from Linguistics 415, 440, and 430 or 450, plus departmental electives . . . . .	14-16
or	
Applied Linguistics Electives: Courses selected from Linguistics 415, 445, 453, 454, 455, and 8 hours from: 456 . . . .	14-16
<i>Foreign Language Requirements (overlapping with college     requirements)</i> . . . . .	10-16
<i>Electives</i> . . . . .	13-25
<i>Total</i> . . . . .	120

**Minor**

The Department of Linguistics offers two minors: one in linguistics and one in uncommon languages.

LINGUISTICS

The minor in linguistics (a minimum of 15 hours) draws upon the basic courses of the Department of Linguistics. It introduces the student to the structure of language, the historical development of languages, and the relation of language to the rest of culture. A minor in linguistics would be of special interest to students in anthropology, computer science, English, foreign languages and literatures, mathematics, philosophy, psychology, sociology, speech communication, and communication disorders and sciences.

Requirements for the minor in linguistics: (1) 300 or 401; (2) at least two courses (6-8 hours) from among the following: 402a, 403, 405, 406, 408; (3) additional courses from among the following to complete at least 15 hours: 402b, 402c, 404, 415, 430, 431, 440, 450, 453, 497.

UNCOMMON LANGUAGES

The minor in uncommon languages consists of a minimum of 15 hours at 200-level or above of an uncommon language offered by the Department of Linguistics. For specific languages, see course offerings.

**Courses**

- 100-6 (3, 3) Oral English for Foreign Students.** Four class hours of oral English and one hour in-class composition. An elective of foreign students admitted to the University in a graduate or undergraduate program. Cannot substitute for Linguistics 101, 102, or 103, but may be taken concurrently. May be taken singly.
- 101-3 Basic English Composition for Foreign Students.** Instruction in the basic methods of English composition, focusing on the particular problems of foreign students. Techniques of analyzing, summarizing, outlining, documenting, synthesizing, and revising. Basic English grammar relevant to composition problems of foreign students. Equivalent to GE-D 101. Limited to foreign students selected by proficiency exam on entrance.
- 102-2 Expository Writing for Foreign Students.** Principles of expository essay style; study and practice in various techniques of expository writing. Directed at the particular problems of foreign students. Advanced study of English grammatical structures. Equivalent of GE-D 117. Limited to foreign students. Prerequisite: 101 or equivalent.
- 103-2 Technical Writing for Foreign Students.** Principles of scientific and technical writing in English as a second language. Study and practice of the techniques of technical report writing. Directed at the particular problems of foreign students. Advanced study of grammatical tools and

organization required for technical prose. Equivalent to GE-D 118. Limited to foreign students. Prerequisite: 101 or equivalent.

**104-2 Grammar in Language.** Description and explanation of the major grammatical categories and structures found in a wide variety of languages, including English. Consideration of the role of language structures in such topics as the nature, origin, acquisition, and variation of language. Course is designed to give students insight into the basic concepts of grammar and show their interrelationship, importance, and functioning in human language.

**210-10 (5, 5) Elementary Uncommon Languages.** Introduction to the basic skills of listening, speaking, reading, writing, and the fundamentals of grammar. Must be taken in sequence. (a-b) Vietnamese.

**290-3 Advanced English Composition for Foreign Students.** Designed for foreign graduate and undergraduate students who need further work in composition in English as a foreign language (EFL) beyond their entering TOEFL scores or successful completion of Linguistics 101 and either 102 or 103. Both group activities and individualized supervision will be provided. Prerequisite: 101 and either 102 or 103; or graduate status.

**300-3 Introduction to Descriptive Linguistics.** An introductory survey of synchronic, descriptive linguistics: assumptions, methods, goals, terminology, and data manipulation.

**321-3 Survey of Vietnamese Literature in Translation.** Lectures and collateral readings in representative works of Vietnamese literature (poetry and prose) in English translation, with attention to literary genres and analyses of major works by poets, novelists, and playwrights writing in Chinese characters, demotic characters, or the romanized script from the 10th century until the modern period.

**330-3 Language and Behavior.** A wide-ranging examination of the implications of language study for people's view of themselves and their place in the world. Topics deal with the pervasiveness of verbal and non-verbal language in various aspects of modern society.

**341-3 Introduction to Intercultural Communication.** (See Speech Communication 341.)

**401-4 General Linguistics.** Basic concepts and methods of general linguistics. Fundamentals of the nature, structure, and functioning of language. Data manipulation and problem solving.

**402-6 (3, 3) Phonetics.** (a) Theory and practice of articulatory phonetics. (b) Theory and practice of instrumental phonetics. Prerequisite: 402a. May be taken singly.

**403-3 English Phonology.** Study of English phonology, both American and British, including phonetics, phonemics and prosodics. Prerequisite: 300 or 401, and 402a, or consent of department.

**404-3 American Dialects.** Regional variation and social stratification of American English. Phonological and syntactic differences among the major dialects of American English. Prerequisite: one previous course in linguistics.

**405-4 Phonological Theories.** A survey of various phonological theories involving the phoneme from the 19th century up to the present, including theoretical issues arising therefrom and relationships among the theories. Limited data analysis within the perspective of the different theories. Prerequisite: 300 or 401, and 402a.

**406-3 Introduction to Historical Linguistics.** An introductory survey of historical and comparative linguistics, including terminology, assumptions, and methods of investigation. Prerequisite: 405; 408 recommended.

**408-4 Syntactic Theory.** Basic concepts and formalisms of transformational generative grammar. Data manipulation and problem-solving in English syntax. Prerequisite: 300 or 401 and 430 or consent of department.

**410-10 (5, 5) Intermediate Uncommon Languages.** Review of the structure of modern spoken language. Introduction to written language. Emphasis on conversational style. The first semester carries undergraduate credit only. (g-h) Vietnamese. Prerequisite: 210 or equivalent.

**411-3 The Linguistic Structure of Chinese.** (See Chinese 410.)

**412-3 The Linguistic Structure of Japanese.** (See Japanese 410.)

**413-3 Linguistic Structure of French.** (See French 411.)

**415-3 Sociolinguistics.** History, methodology, and future prospects in the study of social dialectology, linguistic geography, multilingualism, languages in contact, pidgin and creole languages, and language planning. Prerequisite: one previous course in linguistics or consent of department.

**420-8 (4, 4) Advanced Uncommon Languages.** Advanced conversation and reading of third-year level materials in preparation for classes conducted in the language. (g-h) Vietnamese. Prerequisite: 410 or equivalent.

**430-3 to 6 (3, 3) Grammatical Structures.** Detailed analysis of the structure of particular languages. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department.

**431-3 Structure of the English Verb.** An analysis of the English verb system. Special study of the modals and non-finites.

**440-1 to 6 (1 to 3 per topic) Topics in Linguistics.** Selected topics in theoretical and applied linguistics. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department.

**442-3 Language Planning.** Survey of the field of language planning: definitions and typologies, language problems, language treatment, attitudes and beliefs about language, relations between language planning processes and other kinds of social and economic planning, linguistic innova-



tions and other processes of language change, implementation of language policies. Prerequisite: 401, 402a.

**445-4 Introduction to Psycholinguistics.** (Same as Psychology 445.) A broad spectrum introduction to psycholinguistics. Topics to be covered include general methodology for the study of psycholinguistics, the nature of language, theories of human communication, language comprehension and production, first and second language acquisition, meaning and thought, natural animal communication systems, and language and the brain.

**450-3 to 6 (3, 3) Language Families.** A synchronic survey of particular language families or sub-families. May be repeated to a total of six hours credit with consent of department. Prerequisite: one previous course in linguistics or consent of department.

**453-4 Methods in Teaching English as a Second Language.** Introduces the basic methods of teaching English as a second language, specifically as part of bilingual programs, and presents the theoretical premises and background from the fields of general linguistics, contrastive linguistics, psycholinguistics, education, and sociolinguistics. Prerequisite: undergraduate status.

**454-2 Observation and Practice in TESL.** Lessons in teaching English as a second language are modeled and demonstrated live and via video-tape. In addition to microteaching and other peer-teaching, students observe ESL/EFL classes and laboratories and do tutoring and practice teaching under supervision as schedulable. Enrollment limited to undergraduates. Prerequisite: 453 or concurrent enrollment or consent of department. Mandatory Pass/Fail.

**455-2 Materials in TESL.** Examination and criticism of currently used textbooks in ESL and bilingual education programs, as well as other printed materials and visual and mechanical aids in teaching English as a second language. Prerequisite: 453 or consent of department.

**456-3 Contrastive and Error Analysis.** Examination of the interference of other languages into the English of ESL learners on the levels of phonetics, phonology, morphology, syntax, lexicon, semantics, and orthography. Study of written and spoken errors, diagnosis of errors, and development of techniques for correction. Prerequisite: 453 or consent of department.

**497-1 to 8 Readings in Linguistics.** Directed readings in selected topics. Prerequisite: consent of department and undergraduate status.

**501-3 Approaches to the Analysis of Error.**

**506-4 Historical Linguistics.**

**507-3 Pidgin and Creole Languages.**

**510-3 History of Linguistics.**

**540-3 to 12 (3, 3, 3, 3) Studies in Applied Linguistics.**

**541-3 Second Language Acquisition.**

**545-3 Advanced Seminar in Psycholinguistics.**

**546-3 Conversation Analysis.**

**548-3 Lexicography.**

**550-4 to 8 (4 per topic) Seminar in Theoretical Linguistics.**

**570-4 Theory and Methods of EFL/ESL.**

**571-3 Language Laboratories in EFL/ESL.**

**572-2 Materials Preparation in EFL/ESL.**

**575-3 EFL/ESL Testing.**

**580-3 to 6 per semester Seminar in Special Problems of EFL/ESL.**

**581-2 Practicum in EFL/ESL: Oral English.**

**582-3 Notional/Functional Syllabus.**

**583-3 Innovative Methods in EFL/ESL.**

**584-3 Teaching of EFL/ESL Composition.**

**585-3 Practicum in EFL/ESL: Written English.**

**593-1 to 4 Research in Linguistics.**

**596-3 Stylistics.**

**597-1 to 8 Readings in Linguistics.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Management (Department, Major, Courses)

The Department of Management is concerned with decision making in the allocation of resources toward the achievement of an organization's objectives. The setting of the organization may be government, business, health, or education, but of greater concern is the administrative process itself regardless of where it takes place.

Students are provided with a curriculum drawing on a variety of disciplines each of which contributes certain conceptual tools and techniques useful in improving the decision making performance of the administrator. Beyond the funda-

mental departmental requirements and those of the College of Business and Administration, a choice of three specialty programs is available.

**Management.** Administrators make and implement decisions through and with people working together toward the achievement of common societal, organizational, and personal goals. Understanding the organizational and environmental factors that influence individuals and groups, particularly in work settings, is critical to the success of managers and other employees. By carefully selecting courses, students can satisfy the general requirements of a management major, and orient their programs of study toward career tracks in general management or personnel management. In each case, opportunities exist to pursue interests in administrative applications to a wider variety of organizational settings including government, health, and education, as well as small and large business.

**Decision Sciences.** The decision sciences rely upon analytical problem-solving approaches to establish resource allocation policies and decisions that will enhance the organization's effectiveness and efficiency. This specialization includes areas of production-operations management, management information systems, and quantitative analysis. By choosing appropriate electives, students can concentrate their preparation in one or more of these areas. Students with a decision sciences specialization are prepared to enter a wide variety of private or public organizations in either direct management or staff positions.

**Entrepreneurship.** Entrepreneurship is the acceptance of risk in the management and direction of a venture. This specialization explores the special problems associated with the operation of an independent and often small business venture. Students may select courses relating to the special problems and techniques appropriate to the task of venture management in preparation for ownership and management roles in their own or a family business venture. By careful selection of courses from all of management, students can select the appropriate courses that will prepare them for their future positions in manufacturing, service, or retailing organizations. Research and consulting positions are also alternatives available to students with this specialization as well as the direction of new ventures for larger organizations.

### **Bachelor of Science Degree, College of Business and Administration**

<i>General Education Requirements</i> . . . . .	45
<i>Professional Business Core (See page 81)</i> . . . . .	40-43
<i>Requirements for Major in Management</i> . . . . .	24
Management 341, 352, 361 . . . . .	9
Specializations (Choose one)	
<i>Management.</i>	
Management 385 or 485 and 431 or 474 . . . . .	6
Choose at least 9 hours from the following (at least 3 hours must be selected from Management courses): Management 345, 350, 385, 431, 456, 474, 485, 489a, Accounting 331, 351, 471, Economics 310, 333, 340, 341, 375, 429, 436, 442, 479, 481, Finance 361, 463, 464, 480, Geography 306, Geology 478, Industrial Technology 382, 465, 466, Marketing 439, 452, Philosophy 342, 415, Political Science 324, 441, Psychology 307, 309, 322, 323, 421, 461, Sociology 426, 475, Speech Communication 280, 326, 362, 480 . . . . .	9
<i>Decision Sciences.</i>	
Management 345 and 453, or 456 or 483. . . . .	6



Choose at least 9 hours from the following (at least 3 hours must be selected from management courses): Management 385, 453, 456, 483, 489b, Accounting 331, Marketing 452; Computer Science 220, 312, Industrial Technology 365, 382, 465 . . . . .		9
<i>Entrepreneurship.</i>		
Management 350 and 471, Finance 350, Marketing 350 . . . . .		12
Choose 3 hours from the following: Accounting 331 or 341, Management 345, 385, 431, 456, 474, or 485, Finance 310, 320, 322, or 323, Marketing 401 or 438. . . . .		3
<i>Electives</i> . . . . .		8-11
<i>Total.</i> . . . .		120

Courses

- 170-3 Introduction to Business.** Survey of business. General knowledge of the modern business world, the composition and functions of the business organization, as well as business as a social institution. Open only to freshmen and sophomores. Does not satisfy a College of Business and Administration requirement.
- 202-3 Business Communications.** Creating and managing administrative communications including the analysis, planning, and practice of composing different types of internal and external communications in various administrative and business contexts. All students must pass a competency test to pass the course. Prerequisite: GE-D 101 or equivalent.
- 208-3 Business Data Analysis.** Uses of business data in policy formulation are discussed. Emphasis is placed on the conversion of raw information into statistics which are useful to the decision maker. Problems stress solution to questions typically raised in businesses. Prerequisite: Mathematics 116 or 139 or equivalent.
- 300-3 Internship in Management.** Supervised work experience that relates to the student's academic program and career objectives. Not repeatable for credit. Prerequisite: junior standing and consent of department. Mandatory Pass/Fail.
- 301-3 Supervisory Management.** Functions of management and the requisites for effective supervision are emphasized by way of application to practical situations. For non-business majors who expect to assume supervisory responsibility where successful allocation and evaluation of human resources is necessary. Does not satisfy a College of Business and Administration requirement. Prerequisite: junior standing or consent of department.
- 304-3 Introduction to Management.** Basic concepts of the administrative process are considered with emphasis on executive action to develop policy, direction, and control based on traditional and behavioral science approaches to decision making. Prerequisite: junior standing or consent of department.
- 318-3 Production-Operations Management.** An introduction to the design, operation, and control of systems or processes by which materials, labor, and capital are combined in an organized way with the objective of producing goods or services. Topical coverage includes the systems concept, planning; forecasting, job design, location, layout, logistics, scheduling, and production, inventory, quality, labor, and cost control. Prerequisite: 208, Mathematics 117 or 140, Computer Science 212 or Electronic Data Processing 217 or equivalent, junior standing or consent of department.
- 341-3 Organizational Behavior.** The study of human problems in administration including the analyses of individual, group, and inter-group relations under a broad range of organizational settings. Theory and case analyses. Prerequisite: 208, and 304 and junior standing or consent of department.
- 345-3 Computer-Based Information Systems.** Integrates topics of management and organization, information, computers, and the systems approach. Emphasizes planning, design, and implementation of information systems to aid management decision making. Application of computer techniques to develop, manipulate, and analyze system models. Prerequisite: 318 and junior standing or consent of department.
- 350-3 Small Business Management.** Identification of small business, its importance and relationship to the United States economy and the opportunities and requirements unique to operation and management. Personal characteristics, interpersonal relationships, organizational systems, and decision-making processes are examined for their contribution to the success or failure of the firm. Prerequisite: junior standing or consent of department.
- 352-3 Quantitative Models for Systems Analysis.** An introduction to mathematical model building in organizations and the solution techniques commonly used to solve such models. Topical coverage includes decision theory, mathematical programming, inventory models, queuing models and simulation. Prerequisite: 208, Mathematics 117 or 140 or equivalent and Computer Science 212 or Electronic Data Processing 217 or equivalent, junior standing or consent of department.



**361-3 Applied Managerial Research.** Design of research to assist managerial decision making. Concepts, tools, sources, and methods of research. Planning, collecting, organizing, evaluating, and presenting research data. Prerequisite: 202, 304, 208 and junior standing or consent of department.

**385-3 Personnel and Human Resources Management.** An introduction to the development, application, and evaluation of policies, procedures, and programs for the recruitment, selection, development, and utilization of human resources in an organization. Prerequisite: 304 or equivalent, introductory statistics, and junior standing or consent of department.

**402-1 Strategies for Seeking Employment.** The job placement process and the work environment from the viewpoint of the applicant. Emphasis on career planning, manpower analysis, placement and interviewing techniques with a stress on the transition from the academic community to the business and professional environment. Not offered for graduate credit. Prerequisite: senior standing or consent of department. Mandatory Pass/Fail.

**431-3 Organizational Design and Structures.** The study of modern theories of complex organizations. Particular emphasis is placed on open-systems perspectives of administrative theory and the adaption of the organization to a changing environment. Prerequisite: 341 and junior standing or consent of department.

**453-3 Advanced Quantitative Models for Systems Analysis.** A continuation of 352. Mathematical model building in organizations and solution techniques commonly used to solve such models. An extension of topics in deterministic and probabilistic modeling introduced in 352. Prerequisite: 352, junior standing or consent of department.

**456-3 Building Decision Systems Support.** Investigation of selected systems and computer based methods for aiding management decision-making. Topics include systems analysis applications, simulation, and decision models. Prerequisite: 345, 352, and junior standing or consent of department.

**471-3 Seminar in Entrepreneurship.** Investigation of selected special or advanced topics in seminar format. Topics may include but are not limited to entrepreneurship, small business analysis, or topics related to the ownership and management of a business. Activities will include library and field research, data analysis, report writing, and active participation in seminar presentations and discussions. Designed particularly for the student who has completed the three small businesses courses numbered 350 and has discussed personal small business or entrepreneurial objectives with the instructor prior to registration. Prerequisite: consent of department.

**474-3 Management's Responsibility in Society.** Analysis of the cultural, social, political, economic, and immediate environment of the organization. Particular emphasis is given to the manner in which the manager adapts to and is influenced by the environment and its conflicting demands. Prerequisite: senior standing or consent of department.

**481-3 Strategic Management and Policy.** Development of organizational strategies and policies within environmental and resource limitations. Emphasis upon the application and integration of basic principles from all areas of business by case problem analysis, simulation exercises, and group participation. Not for graduate credit. Prerequisite: senior standing, 304, 318, Finance 320, Marketing 304, or equivalent.

**483-3 Advanced Production-Operations Management.** In-depth study of analytical planning, scheduling, and control theory and techniques in the context of production/operations systems. Case exercises will be utilized to illustrate production management problems and methods. Prerequisite: 318, 352, junior standing or consent of department.

**485-3 Organizational Change and Development.** Analysis of problems in personnel management with emphasis on current trends and techniques. Case problems, special reports, and experiential approaches are used as a basis for examining ways of using an organizations' human resources to best advantage. Prerequisite: 341, junior standing or consent of department.

**489-6 (3, 3) Seminar.** Investigation of selected special or advanced topics in seminar format. Topics may include, but are not limited to: management responsibility in society, wage and salary administration, health services administration, data processing management, current issues in management, etc. (a) Management. (b) Decision sciences. May be taken singly; normally a student takes only one of the two options. Prerequisite: consent of department.

**491-1 to 6 Independent Study.** Utilizes special faculty resources to enable individually, the exploration of an advanced area of study through research by means of data analysis and/or literature search. Prerequisite: consent of department.

## Marketing (Department, Major, Courses)

Marketing deals with all activities required to link production of goods and services with their use. The emphasis in all courses is upon the development of an analytical approach to the creative solution of marketing problems. The department will assist students in arranging suitable course sequences to prepare for careers in such fields as retailing, sales management, industrial marketing, phys-



ical distribution, promotional management, international marketing, and marketing administration.

**Bachelor of Science Degree, College of Business and Administration**

<i>General Education Requirements</i> .....	45
<i>Professional Business Core (See page 81)</i> .....	40-43
<i>Requirements for Major in Marketing</i> .....	21
Marketing 329, 363, 390, 493 .....	12
Marketing Electives .....	9
<i>Electives</i> .....	11-14
<i>Total</i> .....	120

**Courses**

**304-3 Marketing Management.** Management of the firm's marketing function within a dynamic operating environment. Includes study of such functions as product development, promotion, channel selection, logistics, and market research. Prerequisite: Junior standing or higher.

**305-3 Behavioral and Social Aspects of Marketing.** Examines underlying psychological, sociological, and economic factors which influence consumer behavior. Studies the impact of marketing activities on society, consumerism and legislation affecting the marketplace. Prerequisite: junior standing or higher.

**329-3 Marketing Channels.** The methods and processes used in the distribution of consumer and industrial products and services. Emphasis is upon the ways in which certain basic distribution functions are carried out in the integrated channel system. The role of a variety of manufacturers, wholesalers and retailers as parts of this system is analyzed. Prerequisite: 304 and junior standing or higher.

**336-3 International Business.** Business activities of firms and social organizations are examined in an international environment. The course will examine the fundamental concepts, and principles of international business. It will focus on the international environment as the international dimension of marketing, financial, accounting, managerial, and production functions. Prerequisite: junior standing or higher.

**341-3 Transportation.** Organization and economic aspects of the United States transportation system, including rail, highway, air, pipeline, and water transportation. Regulatory problems of transportation. Current transportation developments and situations. Prerequisite: junior standing or higher.

**350-3 Small Business Marketing.** Deals with principles involved in locating market opportunities and developing growth plans for businesses requiring a relatively low initial capital investment. Taught from the point of view of the owner-manager relying heavily upon case examples of successful entrepreneurship. Prerequisite: junior standing or higher.

**363-3 Promotional Concepts.** The role of promotional activities in the firm's marketing function – advertising, personal selling, sales promotion, and publicity. The relationship of consumer behavior to the area of promotion. Prerequisite: 304 and junior standing or higher.

**390-3 Marketing Research and Analysis.** The basic procedures and theories appropriate to solving various types of marketing problems in the context of business organization and decision models. Prerequisite: 304 and Administrative Sciences 208 or equivalent and junior standing or higher.

**401-3 Retail Management.** Designed to present the basic principles in decision areas such as location, layout, organization, personnel, merchandise control, sales promotion, advertising, etc. Retail merchandising through managerial perspective. Prerequisite: 304 and junior standing or higher.

**435-3 International Marketing.** Analysis of international operations. Emphasis on the factors influencing marketing to and within foreign countries and the alternative methods of operations open to international firms. Prerequisite: 304 and junior standing or higher.

**438-3 Sales Management.** Analysis of the management of the sales effort within the marketing system. Philosophies, concepts, and judgment criteria of the sales function in relationship to the total marketing program. Prerequisite: 304 and Administrative Sciences 304 or 301 and junior standing or higher.

**439-3 Industrial Marketing.** Analysis of decision criteria related to the marketing of industrial products. Emphasis on program development, formulation of a marketing mix, and the behavioral relationships in the modern industrial organization. Prerequisite: 304 and junior standing or higher.

**452-3 Physical Distribution Management.** Integration of physical distribution activities of the firm into a system. Transportation and location as elements of the system. Inventories and service as constraints upon the system. Planning, operation, organization, and management of the system. Prerequisite: 304 and junior standing or higher, or consent of the department.

**463-3 Advertising Management.** Advertising from the viewpoint of business management. De-

velops an understanding of the role of advertising under various conditions. Problems of integrating advertising strategy into the firm's total marketing program. Prerequisite: 304 and 363 and junior standing or higher.

**493-3 Marketing Policies.** A comprehensive and integrative view of marketing policy formulation. Marketing decisions analyzed and discussed. Prerequisite: 329, 363, and 390 (not more than one to be taken concurrently) and junior standing or higher.

**499-1 to 6 (1 to 3, 1 to 3) Marketing Insights.** Provides the student an opportunity to participate in an internship program, independent study, or seminar coinciding with areas of interest. May be repeated for credit only when topics vary. Prerequisite: junior standing or higher, and approval of the instructor and the department chairperson in the semester prior to enrollment.

Mathematics (Department, Major Courses)

The Department of Mathematics offers a broad range of courses to prepare students for research, for teaching, and for applications of mathematics in business, industry, government, science, and engineering. A student interested in a major in mathematics should consult with a Department of Mathematics adviser for information about suggested programs in pre-graduate training, computer-related mathematics, applied mathematics for physical science and technology, operations research, probability and statistics, pre-actuarial training, computational applied mathematics, and the teaching of mathematics. All of these options are possible by properly selecting courses within the requirements listed below.

The Department of Mathematics is part of the College of Science and offers programs leading to the Bachelor of Science degree in that college.

The Bachelor of Science degree is also offered in the College of Education for students interested in teaching mathematics in junior or senior high school. This program has sufficient flexibility to allow a student to prepare for alternate career possibilities.

A Bachelor of Arts degree is offered through the College of Liberal Arts. The mathematics course requirements for this degree are the same as those for the Bachelor of Science degree in the College of Science, but the College of Science requirements in physical and biological science are replaced by a secondary concentration requirement in some area of application of mathematics, plus College of Liberal Arts requirements in English composition.

Students majoring in business and administration with a secondary concentration in mathematics may obtain a second major in mathematics. The requirements are Mathematics 150, 250, 251, 221, and five approved mathematics courses at the 300-400 level, of which at least four are at the 400-level (excluding 311, 314, 319E, 352E, 400, 411, 412, 457, 458). Recommended courses for this program are Mathematics 361, 472, 475, 480, 483; Management 352, 453, 456; Economics 315, 465; Finance 310, 331, 341.

Each student majoring in mathematics must meet with a Department of Mathematics adviser each semester for planning and approval of mathematics courses appropriate to the student's goals and interests.

A grade of C or better is required in every mathematics course used to satisfy departmental requirements.

Bachelor of Science Degree, College of Science

General Education Requirements .....	45 <sup>1</sup>
Supplementary College Requirements.....	16
Physical Sciences (not GE-A).....	6 <sup>1</sup>
Biological Sciences (not GE-A) .....	6 <sup>1</sup>
Foreign Language (French, German, or Russian recommended).....	(4) <sup>2</sup> + 4
Requirements for Major in Mathematics.....	34-35
Mathematics 150, 250, 251, 221 .....	(3) <sup>1</sup> + 11



Computer Science 202 or Engineering 222 .....	2-3
At least one course from each of the following groups: (One area may be waived for students who have a minor in computer science) ...	12
Group A: Algebra/Discrete Mathematics/Linear Algebra	
319, 419, 421, 447, 449	
Group B: Analysis	
352, 450, 452, 455	
Group C: Applied Mathematics/Numerical Analysis	
305, 361, 471, 472, 475A	
Group D: Probability/Statistics	
380, 480, 483	
Three additional courses in mathematics numbered above 299 (excluding 311, 314, 319E, 352E, 400, 411, 412, 457, 458). ....	9
Each student's program must include at least 4 mathematics courses at the 400 level.	
Courses taken Pass/Fail will not count toward the major.	
Electives .....	24-25
Total.....	120

<sup>1</sup>The 45 hour requirement is reduced by taking science and mathematics courses which are approved substitutes for General Education requirements.  
<sup>2</sup>Four hours of foreign language may be applied toward General Education requirements.

**Bachelor of Arts Degree, College of Liberal Arts**

General Education Requirements .....	45
Supplementary College Requirements.....	7
English Composition .....	3
Foreign Language .....	(4) + 4
Requirements for Major in Mathematics.....	34-35
Mathematics 150, 250, 251, 221.....	(3) + 11
Computer Science 202 or Engineering 222 .....	2-3
At least one course from each of the following groups: (One area may be waived for students who have a minor in computer science) ...	12
Group A: Algebra/Discrete Mathematics/Linear Algebra	
319, 419, 421, 447, 449	
Group B: Analysis	
352, 450, 452, 455	
Group C: Applied Mathematics/Numerical Analysis	
305, 361, 471, 472, 475A	
Group D: Probability/Statistics	
380, 480, 483	
Three additional courses in mathematics numbered above 299 (excluding 311, 314, 319E, 352E, 400, 411, 412, 457, 458). ....	9
Each student's program must include at least 4 mathematics courses at the 400 level	
Courses taken Pass/Fail will not count toward the major.	
Secondary Concentration Requirements .....	6-9
Six to nine hours approved by the Department of Mathematics in one of the following areas: engineering, computer science, physics, economics, business and administration. A minor in any department of the College of Liberal Arts or the College of Science may be substituted for this requirement.	
Electives .....	24-28
Total.....	120

**Bachelor of Science Degree, College of Education**

Students in the College of Education with a major in mathematics must plan schedules of mathematics courses numbered above 199 with a mathematics adviser. Grades must be at least *C* in mathematics courses used to satisfy these requirements.

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Requirements for Major in Mathematics</i> .....	37
Mathematics 150, 250, 251 or 305 .....	(4) + 7
Mathematics 221 .....	3
A student may take some of the above courses by proficiency examination.	
Computer Science 202 .....	3
Mathematics 311, 319, (or 419), 335, and 352 (or 452) .....	13
Mathematics 319E and 352E .....	2
At least 3 additional mathematics courses numbered above 399 .....	9
<i>Professional Education Requirement</i> .....	25
See Teacher Education Program, page 83.	
<i>Electives</i> .....	13
<i>Total</i> .....	120

<sup>1</sup>See Catalog section titled Curriculum, Instruction, and Media for specific certification requirements.

Unconditional admission into the Teacher Education Program in mathematics requires a 2.5 average in mathematics courses numbered above 149, including a grade of *C* or better in at least two mathematics courses numbered above 299 (not including Mathematics 311, 314, 400, 411, or 412).

Approval for student teaching requires a grade of *C* or better in Mathematics 311 and a 2.25 average in mathematics courses numbered above 299, including a grade of *C* or better in at least four other mathematics courses (not including Mathematics 314, 400, 411 or 412.) Students with a minor in mathematics must also meet this requirement to student teach in mathematics.

**Minor**

A non-teaching minor consists of Mathematics 150, or 140, or equivalent and 12 hours of mathematics credit at the 200 level or above, including at least one course at the 400 level (excluding 311, 314, 400, 411, 412, 457, and 458). Courses should be approved by a mathematics departmental adviser. Elementary and secondary education students interested in a mathematics minor should see a mathematics departmental education adviser to obtain a current list of specific requirements. A grade of *C* or better must be earned in all courses used to meet minor requirements.

**Honors**

Mathematics 395 and 495 are used for individual honors work for upper level undergraduates in mathematics.

**Courses**

**108-3 College Algebra.** The algebra of functions (polynomials, rational, exponential, logarithmic), graphing, conic sections, solving equations including systems. Credit is not given for both 108 and 111. Prerequisite: GE-D 107 or two years of college preparatory mathematics including the content of algebra I and II.

**109-3 Trigonometry and Analytic Geometry.** Trigonometric and inverse trigonometric func-



tions, complex numbers, conic sections, polar coordinates. Credit is not given for both 109 and 111. Prerequisite: 108 or equivalent.

**111-5 Precalculus.** An intensive course in college algebra and trigonometry for students who plan to take Calculus I. The algebra of functions (polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric), graphing, conic sections, solving equations including systems, complex numbers, polar coordinates. Not open to students with credit in 108 or 109. Prerequisite: three years of college preparatory mathematics, including algebra I, algebra II, and geometry.

**114-4 Algebraic and Arithmetic Systems.** Whole numbers, integers, rational numbers, and real numbers; numeration systems; algorithms; number theory; metric system, elementary algebra probability. Successful completion of this course requires a passing grade on a basic skills test of minimal mathematical proficiency. This course can be used to satisfy the mathematics requirements in General Education. Prerequisite: one year of high school algebra or GE-D 106 or equivalent.

**116-5 Finite Mathematics and Algebra.** Topics form intermediate algebra and college algebra, systems of linear equations, matrix algebra, Gauss-Jordan row reduction, linear programming, elementary probability theory, emphasis on business applications. Credit is not given for both 116 and 139. If there is prior credit in GE-D 107, Mathematics 108 or 111, only 3 hours of credit for 116 may be applied to graduation requirements. This course can be used to satisfy the mathematics requirement in General Education. Prerequisite: one year of high school algebra or GE-D 106.

**117-5 Finite Mathematics and Calculus.** A continuation of 116. Topics in algebra, elementary differential calculus, max-min problems emphasizing business applications, partial derivatives, elementary integral calculus with applications in economics. Credit hours for both 117 and 140 or for both 117 and 141 may not be applied to fulfillment of degree requirements. No credit hours for 117 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: 116.

**139-3 Finite Mathematics.** Set concepts and operations, combinations, permutations, elementary probability theory including Bayes formula, linear systems of equations, matrix algebra, Gauss-Jordan row reduction, introduction to linear programming. Credit is not given for both 116 and 139. Prerequisite: GE-D 107 or one and one-half years of high school algebra.

**140-4 Short Course in Calculus.** Techniques of differentiation, increasing and decreasing functions, curve sketching, max-min problems in business and social science; partial derivatives, Lagrange multipliers, elementary techniques of integration. Credit hours for both 117 and 140 or for both 140 and 141 may not be applied to fulfillment of degree requirements. No credit hours for 140 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: GE-D 107 or one and one-half years of high school algebra.

**141-4 Short Course in Calculus for Biological Sciences.** Basic techniques of differentiation and integration. Population and organism growth problems solved by using calculus. Translation of physical problems in the biological sciences into mathematical problems. Credit hours for both 141 and 117 or for both 141 and 140 may not be applied to fulfillment of degree requirements. No credit hours for 141 may be applied to fulfillment of degree requirements if there is prior credit in 150. Prerequisite: 111 or equivalent.

**150-4 Calculus I.** Treatment of the major concepts and techniques of single-variable calculus, with careful statements but few proofs. Differential and integral calculus of the elementary functions with associated analytic geometry. Students interested in honors credit should see Mathematics 159. If there is prior credit in 140, 117, or 141, only 2 hours credit for 150 may be applied to graduation requirements. Prerequisite: 111 or equivalent.

**215-3 Discrete Structures I.** (Same as Computer Science 215.) Number systems and computer arithmetic. Sets relations and functions. Boolean algebra with applications to computer logic and logical design. Elementary matrix operations. Combinations, permutations, and counting techniques. Prerequisite: 108 or equivalent.

**221-3 Introduction to Linear Algebra.** Vector spaces, linear functions, systems of equations, dimensions, determinants, eigenvalues, quadratic forms. Prerequisite: 150.

**250-4 Calculus II.** Develops the techniques of single-variable calculus begun in Calculus I and extends the concepts of function, limit, derivative, and integral to functions of more than one variable. The treatment is intuitive, as in Calculus I. Techniques of integration, introduction to multivariate calculus, elements of differential equations. Students interested in honors credit should see Mathematics 259. Prerequisite: 150.

**251-3 Calculus III.** Further topics in calculus. Definite integrals over solid regions, applications of partial derivatives, vectors and vector operators, derivative of vector function, line integrals. Green's theorem. Prerequisite: 250.

**257-1 to 12 Concurrent Work Experience.** As an instructional aide, the student will do tutoring under the direction of an established teacher and under the supervision of a representative of the Department of Mathematics. Prerequisite: consent of department. Mandatory Pass/Fail.

**282-3 Introduction to Statistics.** Designed to introduce beginning students to basic concepts, techniques, and applications of statistics. Topics include the following: organization and display of data, measures of location and dispersion, elementary probability, statistical estimation, and parametric and nonparametric tests of hypotheses. Prerequisite: three semester hours of college mathematics beyond general education mathematics; e.g. any of 111, 117, 139.



**283-3 Introduction to Applied Statistics.** This course is experiment motivated, uses real-work data, and computer analysis of data. Statistical concepts discussed are descriptive statistics, elementary probability, expectation, sampling distributions, statistical estimation and testing, confidence intervals, correlation and regression, and contingency tables. The student is given experience in writing reports of experiments. Prerequisite: 140.

**305-3 Introduction to Ordinary Differential Equations I.** Solution techniques for differential equations with emphasis on second order equations, applications to physical sciences, numerical methods. Prerequisite: 250.

**306-3 Introduction to Ordinary Differential Equations II.** Laplace transforms and Fourier series with applications to ordinary and partial differential equations. Systems of first order differential equations, stability. Prerequisite: 305 or consent of instructor.

**311-4 Teaching of Secondary Mathematics.** The nature and objectives of the secondary mathematics curriculum. Particular attention is given to the means of introducing new ideas into the high school program. For students preparing to be certified teacher of secondary mathematics. Three lectures and two laboratory hours per week. Does not count toward a mathematics major in the College of Liberal Arts or in the College of the Science. Prerequisite: 319, 319E, and 335.

**314-3 Geometry for Elementary Teachers.** Congruence, similarity; parallelism, perpendicularity; measurement; area, volume; ratio and proportion; constructions; proof. May not be used to satisfy requirements for a mathematics major. Prerequisite: 114 or consent of department.

**319-3 Introduction to Abstract Algebra.** Basic properties of groups and rings: Binary operations, groups, subgroups, permutations, cyclic groups, iso-morphisms, Cayley's theorem, direct products, cosets, normal subgroups, factor groups, homomorphisms, rings, integral domains. Prerequisite: 221; plus for secondary education majors, concurrent enrollment in 319E.

**319E-1 Modern Algebra as Applied to the Secondary Schools.** Two hours per week. The applicability of the concepts of modern algebra, particularly the field axioms and the function concept, to the secondary curriculum. Prerequisite: concurrent enrollment in 319. Mandatory Pass/Fail.

**335-3 Concepts of Geometry.** Introduction to the foundations of Euclidean and non-Euclidean geometry with an emphasis on axiom systems, models, and counterexamples. Topics include metric geometry, betweenness, plane separation, congruence, absolute plane geometry, the critical function, and parallelism. Prerequisite: 221 or 250.

**352-3 Introduction to Analysis.** A rigorous treatment of concepts introduced in elementary calculus, such as real number system, limits and continuity, derivatives, integration, transcendental functions. Prerequisite: 221, 250; plus for secondary education majors, concurrent enrollment in 352E.

**352E-1 Analysis as Applied to the Secondary Schools.** Two hours per week. Sequences, series, infinite decimals, continuity. Applications to the secondary curriculum. Prerequisite: concurrent enrollment in 352. Mandatory Pass/Fail.

**361-3 Numerical Calculus.** (See Computer Science 361.)

**380-3 Elements of Probability.** Probability as a mathematical system. Axioms, permutations and combinations, random variables, generating functions, limit theorems, and Monte Carlo procedure. Prerequisite: 250 and Computer Science 202.

**395-1 to 6 Readings in Mathematics.** Supervised reading in selected subjects. Prerequisite: 3.00 grade point average in mathematics and consent of chairperson.

**400-3 History of Mathematics.** An introduction to the development of major mathematics concepts. Particular attention given to the evolution of the abstract concept of space, to the evolution of abstract algebra, to the evolution of the function concept, and to the changes in the concept of rigor in mathematics from 600 B.C. Does not count toward a mathematics major in the College of Liberal Arts or in the College of Science. Prerequisite: 319 and 352 or consent of instructor.

**405-3 Intermediate Ordinary Differential Equations.** Topics selected from linear systems, existence and uniqueness for initial value and boundary value problems, oscillation, and stability. Prerequisite: 306.

**406-3 Eigenfunction Methods in Applied Mathematics.** The discrete and continuous model for the vibrating string; separation of variables and eigenfunction analysis; elementary structure of inner product spaces; the spectral theorem for finite dimensional Hermitian operators and applications; the Courant-Fisher max-min characterization and applications; the spectral theorem for compact Hermitian operators and applications to Fredholm integral equations and Sturm-Liouville differential operators. Prerequisite: 221 and 305.

**407-3 Introduction to Partial Differential Equations.** First order linear and quasilinear partial differential equations, characteristics, second order linear partial differential equations, classification of types, boundary value and initial value problems, well posed problems, the wave equation, domain of dependence, range of influence, Laplace's equation and Dirichlet problems, the maximum principle. Poisson's integral, fundamental solution of the heat equation. Prerequisite: 251, 305.

**409-3 Fourier Transform and Applications.** Techniques for finding FT's; convolution; linear time invariant systems; Dirac functionals; Lighthill's theory of generalized functions; FT's of periodic, discrete, and finite functions; duality; filtering; the sampling theorem; the central limit theorem; FT solution of the heat and wave equations; Poisson's formula; de Boor's algorithm for computing the FFT. Prerequisite: 305 and 221 or 306.



- 411-1 to 6 (1 to 3, 1 to 3) Mathematical Topics for Teachers.** Variety of short courses in mathematical ideas useful in curriculum enrichment in elementary and secondary mathematics. May be repeated as topics vary. Does not count toward a mathematics major.
- 412-3 Problem Solving Approaches to Basic Mathematical Skills.** Content of basic skills at all levels of education and the development of these skills from elementary school through college; emphasis on problem solving and problem solving techniques; determination of student skills and proficiency level. Credit may not be applied toward degree requirements in mathematics. Prerequisite: 314 or equivalent.
- 417-3 Applied Matrix Theory.** Matrix algebra and simple applications, simultaneous linear equations, linear dependence and independence of vectors, rank and inverses, determinants, eigenvalues and eigenvectors, quadratic forms, applications. This course may not be counted toward a graduate degree in mathematics. Prerequisite: 139 or 221 or consent of department.
- 419-4 Algebraic Structures I.** Groups, subgroups, normal subgroups and homomorphism theorems, permutation groups, finite direct products, finite abelian groups,  $p$ -groups and Sylow's theorem, normal and subnormal series, Jordan Holder theorem. Rings and subrings, divisibility theory in integral domain, polynomial rings. Prerequisite: 319 or consent of department.
- 421-3 Linear Algebra.** Fields, vector spaces over fields, triangular and Jordan forms of matrices, dual spaces and tensor products, bilinear forms, inner product spaces. Prerequisite: 221.
- 425-3 Theory of Numbers.** Properties of integers, primes, divisibility, congruences, quadratic forms, diophantine equations, and other topics in number theory. Prerequisite: 319 or consent of department.
- 426-3 Introduction to Mathematical Logic.** General introduction to the method of mathematical logic, forming of denials, the statement calculus including the deduction and completeness (with respect to truth tables) theorems, and the predicate calculus including the deduction theorem, deduction techniques; (in the predicate calculus) normal forms and equality, first order theories, first order number theory, consistency, truth (in the model-theoretic sense), completeness theorem (with respect to the model-theoretic definition of validity), independence categoricity, decidability, and a brief introduction to Gödel's theorem. Prerequisite: 301, 319, 352, or Philosophy 320.
- 433-3 Introduction to Topology.** Study of continuity, convergence, compactness, and completeness in the context of metric spaces. Prerequisite: 352 or consent of department.
- 435-3 Elementary Differential Geometry.** An introduction to modern differential geometry through the study of curves and surfaces in  $\mathbb{R}^3$ . Local curve theory with emphasis on the Serret-Frenet formulas; global curve theory including Fenchel's theorem; local surface theory motivated by curve theory; global surface theory including the Gauss-Bonnet theorem. Prerequisite: 251 and 221.
- 437-3 Elementary Algebraic Topology.** Homotopic maps. Homotopic paths. Fundamental groups. Covering spaces. Homotopy lifting property. Manifolds. Classification of surfaces. Polyhedra. Prerequisite: 319 and 433.
- 447-3 Introduction to Graph Theory.** (Same as Computer Science 447.) Introduction to theory of graphs, diagraphs, and networks and applications to electrical systems and computer science. Topics include blocks and cut-points, Eulerian graphs, trees, cycle and cocycle spaces, planarity and Kuratowski's Theorem, connectivity and Menger's Theorem, Hamiltonian graphs, colorability and Heawood's Theorem, weak and strong connectivity in digraphs, existence of directed paths and cycles in tournaments, flows in networks and Ford-Fulkerson Theorem. Prerequisite: 221 and one of 319, 301, or Computer Science 342, or Engineering 335.
- 449-3 Combinatorics and Graph Theory.** (Same as Computer Science 449.) An introduction to graph theory and combinatorial mathematics with computing applications. Topics include permutations and combinations, generating functions, recurrence relations, the principle of inclusion and exclusion. Polya's theory of counting, graph theory, transport networks, matching theory, block designs. Prerequisite: 319 or Computer Science 315 or consent of instructor.
- 450-3 Methods of Advanced Calculus.** Sequences and series of functions; partial differentiation; Jacobians; the implicit function theorem; the classical differential operators in general curvilinear coordinates; line, surface, and volume integrals, the divergence and Stokes' theorems; transformation of variables in multiple integrals; integrals containing a parameter. Prerequisite: 251.
- 451-3 Introduction to the Theory of Computing.** (See Computer Science 451.)
- 452-3 Introduction to Analysis.** A rigorous development of one-variable calculus concepts including the real numbers, sets, limits of sequences, continuity of functions, differentiation, Riemann-Stieltjes integration, series of functions. Prerequisite: 251.
- 455-3 Introduction to Complex Analysis and Applications.** Complex numbers, analytic functions, line integrals, the Cauchy-Goursat theorem and its implications, power series, Laurent series, polar and essential singularities, analytic continuation, contour integration, and the residue theorem, conformal mapping, asymptotic expansions. Prerequisite: 251.
- 457-3 Methods of Quantitative Analysis.** (Same as Business Administration 451.) Introductory survey of basic quantitative methods necessary for graduate study in business; designed for students with deficiencies in methods of quantitative analysis. Course consists of introduction to calculus, matrix algebra, and probability. Extensive use is made of business examples. Prerequisite: enrollment in Master of Business Administration program or consent of instructor.
- 458-3 Statistical Methods in Business.** Descriptive statistics, probability distributions, statis-



tical estimation and hypothesis testing with business applications, chi-square tests, linear regression, analysis of variance, index numbers, interpretation of computer output. Prerequisite: 457 or equivalent and graduate standing in College of Business and Administration.

**460-3 Transformation Geometry.** Geometry as the study of properties invariant under congruences, similarities, affine transformations, and projectivities. Prerequisite: 221 and 319.

**471-3 Introduction to Optimization Techniques.** (Same as Computer Science 471.) Nature of optimization problems. General and special purpose methods of optimization, such as linear programming, classical optimization, separable programming, integer programming, and dynamic programming. Prerequisite: 221, 250. Computer Science 202.

**472-3 Linear Programming.** (Same as Computer Science 472.) Nature and purpose of the linear programming model. Development of the simplex method. Application of the model to various problems. Introduction to duality theory. Transportation and network flow problems. Postoptimal analysis. Prerequisite: 221 and Computer Science 202.

**473-3 Reliability Theory.** Formulation of the concept of reliability in terms of probability theory. Failure distributions and failure rates. Elements of renewal theory. Age and block replacement policies, optimal replacement policies, optimal replacement policies for classes of failure distributions. Prerequisite: 480 or 483.

**475-6 (3, 3) Numerical Analysis.** (Same as Computer Science 464.) An introduction to the theory and practice of computation with special emphasis on methods useful with digital computers. Topics include the solution of nonlinear equations, interpolation and approximation, numerical differentiation and integration, solution of differential equations, matrix calculations and the solution of systems of linear equations. Must be taken in a,b sequence. Prerequisite: 221, 250, Computer Science 202.

**480-4 Introduction to Probability.** A comprehensive introduction to probability theory at a level suited to most upper-division undergraduates and first-year graduate students. Topics include sample space, events, probability measure, combinatorics, conditional probability, independence, random variables, probability distributions, expectations, moments, moment generating functions, functions of random variables, multivariate distributions, law of large numbers, central limit theorem. Prerequisite: 251.

**481-3 Elements of Stochastic Processes.** An introduction, including normal, Poisson, and Markov processes. Prerequisite: 480.

**483-4 Mathematical Statistics in Engineering and Physical Sciences I.** Introduction to statistical theory with applications in engineering and the physical sciences. Probability: axioms, distributions including noncentral distributions, moments and moment generating functions, order statistics. Statistical inference: point and interval estimation, testing hypotheses, likelihood ratio tests. Prerequisite: 250.

**484-4 Mathematical Statistics in Engineering and Physical Sciences II.** An introduction to linear models and the design of experiments with applications in engineering and the physical sciences. Analysis of the general linear model, basic designs and criteria, response surface analysis and factor analysis. Statistical computation. Prerequisite: 483 and 221, or consent of instructor.

**487-3 Nonparametric Methods in Statistics.** A discussion of confidence intervals and tests of hypotheses where no functional form is postulated for the population. Prerequisite: 483 or 480.

**489-3 Sample Survey Methods.** Introduction to methods for sampling human populations, wild-life populations, and spatial distributions, and associated methods of data analysis. Emphasis will be given to criteria for choosing the appropriate sampling design and to the avoidance of nonsampling errors. Prerequisite: 483 or consent of instructor.

**495-1 to 6 Special Topics in Mathematics.** Individual study or small group discussions in special areas of interest under the direction of a member of the faculty. Prerequisite: consent of chairperson and instructor.

**501-3 Real Analysis.**

**502-3 Modern Analysis.**

**505-3 Ordinary Differential Equations.**

**506-1 to 9 Advanced Topics in Ordinary Differential Equations.**

**507-3 Partial Differential Equations.**

**508-3 Integral Equations.**

**510-3 Mathematical Logic.**

**511-3 Modern Approaches to Teaching Secondary School Mathematics.**

**516-8 (4, 4) Statistical Analysis in the Social Sciences.**

**520-3 Algebraic Structures.**

**522-3 to 9 per topic (3, 3, 3) Advanced Topics in Algebra.**

**525-3 Number Theory.**

**526-3 to 9 per topic (3, 3, 3) Advanced Topics in Number Theory.**

**528-3 Formal Languages and Automata.**

**529-3 Theory of Computability.**

**530-3 General Topology.**

**531-3 Algebraic Topology.**

**532-3 to 9 per topic (3, 3, 3) Advanced Topics in Topology.**



**536-3 Differential Geometry.**

**537-3 to 9 per topic (3, 3, 3) Advanced Topics in the Topology and Geometry of Manifolds.**

**550-1 to 6 per topic (1 to 3 per semester) Seminar.**

**551-3 Functional Analysis.**

**552-3 to 9 per topic (3, 3, 3) Special Topics in Analysis.**

**553-3 to 9 (3, 3, 3) Special Topics in Functional Analysis.**

**555-3 Complex Variables.**

**560-3 Calculus of Variations.**

**566-3 Introduction to Continuum Mechanics.**

**567-6 (3, 3) Econometrics I and II.**

**569-1 to 9 Advanced Topics in Applied Mathematics.**

**570-3 to 9 (3, 3, 3) Topics in Operations Research.**

**572-3 to 9 per topic (3, 3, 3) Advanced Numerical Analysis.**

**575-3 Matrix Computations.**

**580-3 Statistical Theory.**

**581-3 Probability.**

**582-3 to 6 per topic (3, 3) Advanced Topics in Probability and Statistics.**

**584-3 Advanced Linear Models and Experimental Design.**

**585-1 to 2 Statistical Consulting.**

**588-3 Multivariate Statistical Analysis.**

**592-2 to 6 per topic (2, 2, 2 or 3, 3) Advanced Topics in Mathematics for Teachers.**

**595-1 to 12 per topic Special Project.**

**599-1 to 6 Thesis.**

**600-1 to 30 Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Medical Education Preparation (Courses)

### Courses

**400-1 to 6 (1 per semester) MEDPREP Seminar.** Seminar on social, professional, and scientific issues of interest to students planning a career in medicine or dentistry. Topics: **(a)** orientation; **(b)** medical/dental seminar. Required of MEDPREP participants. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students. Must be taken in a,b sequence. Mandatory Pass/Fail.

**401-1 to 20 (1 to 2 per area) MEDPREP Basic Skills.** Focus on skills critical for academic success in preprofessional and professional training. Areas: **(a)** learning skills; **(b)** science process skills; **(c)** quantitative skills; **(d)** perceptual motor skills; **(e)** interpersonal skills; **(f)** reading skills; **(g)** written communication skills; **(h)** vocabulary skills; **(i)** speed reading; **(j)** other. All areas required or proficiency demonstrated within the first year in program. Not for graduate credit. Prerequisite: restricted to MEDPREP students. Areas c, d, e, f, g, and i are Mandatory Pass/Fail.

**402-1 to 12 (1 to 2 per topic) MEDPREP Special Problems.** Seminars, workshops, lectures, and field experiences related to preparing the student for medical/dental school and careers in medicine or dentistry. Topics: **(a)** MCAT/DAT orientation; **(b)** research seminar; **(c)** clinical experience; **(d)** independent research; **(e)** independent readings; **(f)** other. Topic **(b)** required of all MEDPREP participants. May be taken for graduate credit only with written permission of the relevant department and graduate dean. Prerequisite: restricted to MEDPREP students. Topic **(c)** Mandatory Pass/Fail.

**403-1 to 15 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3) MEDPREP Biology Tutorial.** Depending on individual need content will be remedial, supplementary to concurrent biological science courses, or additional permitting acceleration. Sections will be **(a)** genetics; **(b)** anatomy, **(c)** physiology, **(d)** embryology, **(e)** microbiology, **(f)** zoology, **(g)** special. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students or consent of instructor.

**404-1 to 14 (1 to 2; 1 to 2; 1 to 2; 1 to 2; 1 to 3; 1 to 3) MEDPREP Chemistry Tutorial.** Depending on individual need content will be remedial, supplementary to concurrent preprofessional chemistry courses (Chemistry 222a,b; 344 and 346; and 450) or additional permitting acceleration. Sections will be **(a,b)** inorganic; **(c,d)** organic; **(e)** biochemistry; **(f)** other. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students.

**405-1 to 4 (1 to 2, 1 to 2) MEDPREP Physics Tutorial.** Depending on individual need content will be remedial, supplementary to concurrent preprofessional physics courses or additional permitting acceleration. Sections will correspond to two semester physics sequences. May be taken for graduate credit only with written permission of the relevant department and the graduate dean. Prerequisite: restricted to MEDPREP students.

## Microbiology (Department, Major, Courses)

Microbiology deals with the study of microorganisms, examining various forms, their classifications, growth, reproduction, heredity, biochemistry, ecology, and their relationship to other living organisms including humans. The following program of study prepares one for laboratory or teaching positions after the bachelor's degree or for graduate study leading to advanced degrees. Students who anticipate the pursuit of higher degrees in microbiology are strongly urged to continue their study of chemistry through physical chemistry, which is an entrance requirement to graduate study in microbiology at many institutions.

Opportunities for specialized training in diagnostic bacteriology, virology, immunology, genetics, biochemistry, and industrial processes are available.

### Bachelor of Arts Degree, College of Science

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	7
Mathematics 108 and 109 or 111 (or its equivalent), or 140 ....	(3) + 3
Foreign Languages .....	(4) + 4
<i>Requirements for Major in Microbiology</i> .....	63
Microbiology 301, 302 .....	7
Microbiology electives: senior level work consisting of a minimum of 15 semester hours of lecture courses with at least six credits from each of the following two groups, Group 1: 403, 441, and 451; Group 2: 425, 460, 470; and a minimum of eight semester hours of laboratory courses .....	23
Biology 305 and one from Biology 306, 307, 308, or 309 .....	6 <sup>2</sup>
Chemistry 222a,b, 344, 345, 346, 347 .....	19 <sup>2</sup>
Physics 203a,b, and 253a,b .....	8 <sup>2</sup>
<i>Electives</i> .....	5
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>These courses will meet the biological and physical science requirements for the College of Science and may be substituted for a maximum of 12 hours in General Education.

### Minor

A minor in microbiology consists of 16 semester hours, to include 301, 302, and other courses determined by the student in consultation with the microbiology adviser.

### Courses

**201-4 Elementary Microbiology.** Basic concepts of microbiology, classification, metabolic activity and the effect of physical and chemical agents on microbial populations. Host-parasite interactions. Infectious agents, particularly as they affect the oral cavity; methods of transmission and control. Prerequisite: for students of dental hygiene.

**301-4 Principles of Microbiology.** Morphology, structure, metabolism, population dynamics, and heredity of the microbial agents with emphasis on pure culture methods of study of bacteria, viruses, and related organisms. Three hours lecture, three hours laboratory. Fall semester. Prerequisite: one year of college chemistry and GE-A 115, or equivalent.

**302-3 Molecular Biology.** Molecular structure, dynamics, and genetics of living cells and viruses, with particular attention to the transfer of biological information. Spring semester. Prerequisite: 301 or Biology 305.

**403-3 Medical Bacteriology Lecture.** A survey of the mechanisms of infection, epidemiology, and immunity and the specific application of these principles to the symptomatology, diagnosis, treatment, and control of the more common bacterial infections of humans. Three hours lecture. Fall semester. Prerequisite: 301.



**404-2 Medical Bacteriology Laboratory.** Procedures for the collection and handling of medical specimens for microbial examination and for cultivation and identification of the pathogenic organisms by their morphological, biochemical, and serological characteristics and the fundamental role of the bacteriologist in the diagnosis of infectious diseases. Four hours laboratory. Fall semester. Prerequisite: 403 or concurrent enrollment.

**421-3 Foods and Industrial Microbiology Lecture.** The relationships of microorganisms to the preparation and preservation of foods; their application to the industrial production of beverages, foods, antibiotics, and other commercial products. Consideration of sanitation, pollution, and recycling of waste products into useful materials. Pure food and drug regulations. Three hours lecture. Prerequisite: 301.

**422-2 Foods and Industrial Microbiology Laboratory.** Methods for preparation, preservation, sanitary inspection, and analyses of foods and industrial products. Four hours laboratory. Prerequisite: 421 or concurrent enrollment.

**425-3 Biochemistry and Physiology of Microorganisms Lecture.** Chemical composition, cellular structure, and metabolism of microorganisms. Prerequisite: organic chemistry.

**426-2 Biochemistry and Physiology of Microorganisms Laboratory.** Laboratory course to study techniques for investigating the chemical composition, cellular structure and metabolism of microorganisms. Prerequisite: 425 or concurrent enrollment, organic chemistry.

**441-3 Virology Lecture.** General properties; classification and multiplication of bacterial and animal viruses; lysogeny; immunological and serological reactions; relation of viruses to cancer; consideration of selected viral diseases of animals. Prerequisite: 301 and 302.

**442-2 Virology Laboratory.** Tissue culture methods, multiplication and assay of animal and bacterial viruses, purification, electron microscopy, interference, immunity. Five hours laboratory. Prerequisite: 441 or concurrent enrollment.

**451-3 Immunology Lecture.** Natural and acquired immunity. Antigens, antibodies, and antigen-antibody reactions *in vitro* and *in vivo*. Three hours lecture. Prerequisite: 403.

**452-2 Immunology Laboratory.** Natural defense mechanism and immune response, preparation of antigens and antibodies, serological reactions, conjugated antibodies, electrophoresis, immunological reactions *in vivo*. Five hours laboratory. Prerequisite: 451 or concurrent enrollment.

**453-3 Clinical Microbiology and Immunology Lecture.** Lectures dealing with the fundamentals and clinical applications of microbiology and immunology and the properties, pathogenesis, and control of bacterial, viral and mycotic infections in people. Three hours lecture. No limit on enrollment. Prerequisite: 403, 441, and 451.

**454-2 Clinical Microbiology and Immunology Laboratory.** Methods and procedures in the clinical diagnosis of microbiological and immunological diseases in people. Four hours laboratory. Enrollment limited to 12. Prerequisite: 404, 442, and 452, consent of instructor, and 453 or concurrent enrollment.

**460-3 Genetics of Bacteria and Viruses Lecture.** Genetic mechanisms, mutation, transformation, recombination, transduction, lysogeny, phenotypic mixing, and reactivation phenomena. Three hours lecture. Prerequisite: 301.

**461-3 Genetics of Bacteria and Viruses Laboratory.** Use of bacteria, plasmids and viruses in transduction, genetic mapping, transposon mutagenesis, and the construction of gene fusions. Performing *in vitro* DNA manipulations such as restriction enzyme mapping, construction of gene libraries, and subcloning. Six hours laboratory. Prerequisite: 460 or concurrent enrollment.

**470-3 Prokaryotic Diversity.** A consideration of the major groups of prokaryotes with special emphasis on their comparative physiology and biochemistry. Prerequisite: 301 or equivalent and one year of organic chemistry.

**471-2 Prokaryotic Diversity Laboratory.** Principles of bacterial nutrition, preparation of microbial growth media, enrichment, isolation, and characterization of aerobic and anaerobic bacteria from natural habitats. Five hours laboratory per week. Prerequisite: 470 or concurrent enrollment.

**490-1 to 3 Undergraduate Research Participation.** Investigation of a problem either individually or as part of a research group under the direction of a member of the faculty. Not for graduate credit. Prerequisite: 3.0 grade point average in microbiology and consent of instructor.

**500-1 Seminar.**

**501-1 Preprofessional Training.**

**504-3 Methods of Microbiological Research.**

**505-1 Special Topics in Microbiology.**

**511-1 to 7 Research.**

**520-2 Advanced Microbial Physiology and Control Mechanisms.**

**528-1 to 3 Readings in Microbiology.**

**540-3 Advanced Virology.**

**542-3 Molecular Virology.**

**543-3 Host-Microbial Interactions.**

**551-3 Advanced Immunology.**

**553-4 Advanced Medical Microbiology and Immunology.**

**562-3 Molecular Genetics.**

**599-1 to 3 Thesis.**

**600-1 to 12 Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Mining Engineering

(SEE ENGINEERING)

## Molecular Science (Major [Doctoral Only], Courses)

### Courses

592-1 Colloquy in Molecular Science.

597-2 to 30 Selected Topics in Molecular Science.

598-2 to 16 Special Projects in Molecular Science.

600-1 to 36 (1 to 16 per semester) Dissertation.

601-1 to 12 per semester Continuing Research.

## Mortuary Science and Funeral Service (Program, Major, Courses)

This program is the only mortuary science program offered in a public university in Illinois. The program was developed in response to a request from the Illinois Funeral Directors Association. The Association's members recognized the need for a school of higher education to educate funeral service practitioners. The program is fully accredited by the American Board of Funeral Service Education and the Illinois Department of Registration and Education.

This program also is designed to accommodate students transferring from community colleges at the end of the first year. Enrollment of beginning students is limited by size of faculty and physical facilities with new students admitted only in the fall semester. Additional application information is required other than that required for admission to the University.

The program requires two academic years of study and one summer of internship in a funeral home for completion. In addition to technical courses which prepare the student for the profession, the student will take a number of courses which will lead to an understanding of the psychological, sociological, and theological implications of death.

Charge for laboratory costs will be approximately \$15.

Faculty members are licensed funeral directors and embalmers with experience in the profession. Professional courses are offered in the program's own preparation room-laboratory. Graduates of the program will have satisfied requirements for the trainee license and will be eligible to write the State and National Board examinations and to begin serving their traineeship. Career opportunities are excellent and to date, all graduates who desired placement have been employed.

Persons active in the profession serve on the program's advisory committee.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

### Associate in Applied Science Degree, School of Technical Careers

#### *Requirements for Major in Mortuary Science and Funeral Service*

GE-A 115, 106 .....	6
GE-B 202 .....	3
GE-D 101 .....	3
GE-D 117, 118, or 119 .....	2



GE-D 153.....	3
School of Technical Careers 120.....	3
Secretarial and Office Specialties 208.....	3
Mortuary Science 101, 102, 108, 225a,b, 230, 250a,b, 256, 257, 375a,b, 380.....	48
Elective (in Health Education).....	2
Total.....	73

Courses

**101-3 Orientation to Funeral Service.** Students will trace the history of funeral services from ancient times through practices with emphasis on the development of funeral practices in the United States. Students study the customs of various cultures throughout the world including customs in the United States. They will demonstrate a knowledge of funeral service organizations and will discuss topical areas of current discussion. Lecture three hours.

**102-4 Restorative Art.** Students will study the anatomical structure of the cranial and facial areas of the human skull. They will describe the facial proportions and markings. The student studies the methods and techniques used to restore facial features that might have been destroyed by traumatic and pathological conditions. They will demonstrate a knowledge of color and cosmetology theory. Laboratory assignments will include modeling, applying cosmetics, making hair restorations and casting facial features. Lecture three hours. Laboratory two hours.

**108-3 Funeral Service Psychology.** Designed to acquaint the student with an overview of psychology in funeral service as applied to death, grief, and mourning. Students will examine interpersonal and public relations as they affect the funeral service practitioner in relationship with the public served. Lecture three hours.

**225-8 (4, 4) Embalming Theory and Practice.** (a) The student will be introduced to techniques of embalming through a study of the body, sanitation, embalming agents, instruments, and methods of embalming. The student studies the theory, practices, and techniques of sanitation; and restoration and preservation of deceased human remains. Laboratory experience will consist of embalming deceased remains and of other related activities. Lecture three hours. Laboratory two hours. (b) The student will study the anatomy of the circulatory system, the autopsied case, the cavity embalming, the contents of the thoracic and abdominal cavities, and the treatment of "special cases" that might be encountered in the embalming process. Laboratory experience is a continuation of 225a. Lecture three hours. Laboratory two hours. Must be taken in a,b, sequence.

**230-4 Mortuary Anatomy.** The student will study the structure and function of the human body as a whole including: general organization, structural organization, tissues, skeletal system, nervous system, circulatory system, physiology of circulation, glands, respiratory system, digestive system, genito-urinary system, integument, and special senses. Lecture four hours.

**250-8 (4, 4) Mortuary Management.** (a) The student will examine the problems involved in the practice of funeral management. Included are the funeral director's responsibilities from the first call until the completion of the last service rendered the family, funeral home operation and records, ethics and professional regulations. Lecture four hours. (b) The student will trace the laws and regulations that govern the practice of funeral service, and study the Illinois License Law, Vital Statistics Act, transportation rules, and Social Security regulations. The funeral director's responsibilities and relationships to local boards of health and the State Department of Public Health are emphasized. Lecture four hours.

**255-5 Embalming Chemistry.** The student will study the chemistry of the body, sanitation, toxicology, chemical change in deceased human remains, disinfection, and embalming fluids. Laboratory experiments will complement lecture material. Lecture four hours. Laboratory two hours.

**256-4 Introductory Microbiology.** The student will survey microbiology: morphology, structure, physiology, populations of microbial organisms, microbial destruction, immunology, and pathogenic agents. Lecture four hours.

**257-4 Pathology.** Students will be introduced to the study of the cause, course, and effects of diseases upon the human body with stress on ways in which tissue changes affect the embalming process. Lecture four hours. Prerequisite: 230 or equivalent.

**375-8 (4, 4) Funeral Service Internship.** (a) Students will spend one summer in a university approved funeral home learning in actual practice situations: functional organization, procedures, and policies of the establishment. They will perform duties and services as assigned by preceptor and coordinator to include surveillance of and participation in the execution of total services rendered to a family. (b) They will be given an opportunity to learn embalming techniques by active participation in the preparation room. Service reports and assignments are required to be completed by the student. Prerequisite: all other requirements of the Mortuary Science curriculum must be met. Must take a and b concurrently.

**380-2 Funeral Service Seminar.** Formal discussions are held to evaluate the experience and progress of the participants in the internship program. Preparations are made for the board examinations. Prerequisite: concurrent enrollment in 375. Mandatory Pass/Fail.

## Museum Studies (Minor)

Museum studies is available as an undergraduate interdisciplinary minor. The purpose of the minor is to introduce students to various aspects of museum work, to acquaint them with the opportunities and problems faced by museums and museum personnel, and to create career opportunities for students who might seek employment in a museum. Emphasis will be placed on actual work situations in such diverse museum functions as exhibition, curation, cataloging, acquisition, and administration.

### Minor

The museum studies minor consists of 18 hours, with 12 hours of required core courses and 6 hours of electives. Within the core courses listed below students must take six hours offered by one department and six hours from at least two other departments. Students may then elect six hours from either the other core courses or electives listed below.

Core Courses: Anthropology 450a and 450b; Art 447; Geology 445; History 497 and 498.

Electives: Anthropology 404 and 460; Art 207 and 499; Political Science 441; Geology 440; History 490 and 493.

## Music (School, Major, Courses)

The requirements for entrance and for graduation as set forth in this bulletin are in accordance with the published regulations of the National Association of Schools of Music, of which this school of music is a member.

Students who wish to major in music are assumed to have acquired extensive experience in performing with school groups or as soloist, basic music reading ability, and a strong sensitivity to music and a desire to communicate it to others. Those without such a background will have to complete additional preparation, which may extend the time to graduation beyond four academic years. Music credits earned at other accredited institutions will apply toward requirements, but the transferring student remains subject to evaluation by the appropriate music faculty for proper placement in the music curriculum.

All students in the Bachelor of Music degree program must maintain satisfactory membership in one of the following ensembles: Music 011, 013, 014, 017, 020, 021, or 022 every term in residence. The choice of major ensembles must be compatible with the student's applied field. Instrumental music education students must enroll in Music 011 for a minimum of one semester. All junior and senior students with a major or minor in music must maintain satisfactory membership every session in one of the above ensembles, or in one of the following: Music 341, 346, or 414. Students are exempt from this requirement during the session of student teaching. Students also may elect additional large or small ensembles, not to exceed three in any one session.

Each student with a major or minor in music must designate a principal applied field and complete the credits specified within the selected specialization. Changes in the principal applied field are permissible so long as the student accumulates the required credit total and meets the required level of proficiency.

Credits in one's principal applied field are based on private lessons with a member of the faculty, weekly participation in Studio Hour (Mondays, at 10:00 a.m.), and recorded attendance each semester at seven campus recitals or concerts, ap-



proved for the purpose by the School of Music faculty, in which the student is not a participant. Students who fail to fulfill either the Studio Hour or attendance at campus recitals or concerts requirements will receive a grade of Incomplete, which can be removed only by making up the deficiency during the ensuing semester. A student who wishes to attempt the performance specialization in applied music must have prior approval of the appropriate faculty jury, and thereafter enrolls for and receives two lessons per week for 4 credits per semester.

A student may elect private instruction in a second field or fields, but this is for one credit per semester since the studio hour and recital attendance requirements pertain only to the principal applied field.

Students not majoring or minoring in music may elect private applied music instruction if they can exhibit sufficient ability, they are participating simultaneously in one of the University performing groups, and faculty loads will allow. Registration is at one credit per semester, with no studio hour or recital attendance requirement. Those wishing such instruction should arrange for an interview and audition with the appropriate instructor.

Students specializing in music education should apply for admission to the Teacher Education Program as soon as they have accumulated 30 semester hours of credit. After being admitted, they must complete a series of specific requirements in order to qualify for student teaching and for the Illinois teaching certificate. Additional information is given under Education, Professional Education Experiences, and Curriculum, Instruction, and Media in this chapter.

**Upper Division Examination**

All Bachelor of Music degree students must pass an upper division examination in order to be admitted into the second half of the music curriculum. It is normally taken before finishing 60 hours of academic study and in the second semester of Music 240. A student must pass the upper division examination before enrolling in Music 321, 322, 357a, 357b, and 340 level of applied music. Transfer students will have conditional enrollment in these courses with the exception that applied music enrollment shall be at the 240 level. The upper division examination for transfer students is taken at the end of the first semester at Southern Illinois University at Carbondale.

The upper division examination consists of an applied music jury performance before the entire music faculty as well as an interview with an appropriate faculty committee. Students will provide a complete repertoire list at the time of the jury. The purpose is to ascertain the appropriateness of the student's choice of music curriculum as well as to give counsel regarding the student's potential for future professional development.

**Financial Information**

Special grants and awards are available to students enrolled in the School of Music who are qualified and in need of financial assistance. Opportunities for employment in the student work program are excellent. In addition, there are scholarships (tuition awards) and loan programs available through the Office of Student Work and Financial Assistance.

Beyond the general university tuition and fees, there are not additional charges for music lessons or use of practice rooms, nor for rental of instruments used in classes or performing groups; however, students are responsible for purchase of their own textbooks, solo literature, and incidental supplies for music lessons and classes. Such costs normally range from \$20 to \$50 per semester.

**Bachelor of Music Degree, College of Communications and Fine Arts**

*General Education Requirements* . . . . . 45  
Including Music 102 and ensemble as GE-C substitutes

<i>Requirements for Major in Music</i> .....	75
Theory: Music 104a,b; 105a,b; 204; 205; 207; 321; 322 <sup>1</sup> .....	19
History-Literature: Music 102; 357a,b <sup>3</sup> .....	8
Major performing ensembles .....	(3) <sup>2</sup> + 3 <sup>4</sup>
Partial Recital: Music 398 .....	1
Beginning Piano: Music 030 (or waiver by examination) .....	4 <sup>5</sup>
Specialization (see below) .....	40
<i>Total</i> .....	120

MUSIC MAJOR – PERFORMANCE SPECIALIZATION, INSTRUMENTAL (STANDARD ORCHESTRAL AND BAND INSTRUMENTS, AND GUITAR)

Music 140-440, principal field, 8 semesters .....	28
Music 498 .....	2
Music 407, 421, 461, or any of 470 series .....	6
Approved music electives .....	4
	<u>40</u>

MUSIC MAJOR – JAZZ PERFORMANCE SPECIALIZATION

Music 140-440, principal field, 8 semesters .....	28
Music 498 .....	2
Music 324, 331, 430 .....	3
Approved music electives to be chosen from 280, 321, 322, 421, 461, or, if the principle field is woodwind, 2 additional hours for secondary instrument must be completed .....	5
Music 365 .....	2
	<u>40</u>

MUSIC MAJOR – PERFORMANCE SPECIALIZATION, KEYBOARD (PIANO, ORGAN, AND HARPSICHORD)

Music 030 not required <sup>5</sup>	
Music 140-440, principal field, 8 semesters .....	28
Music 498 .....	2
Music 461 .....	3
Music 407, 421, or any of 470 series .....	4
Music 341 .....	3
	<u>40</u>

MUSIC MAJOR – PERFORMANCE SPECIALIZATION, VOICE

Music 140-440, principal field, 8 semesters .....	28
Music 498 .....	2
Music 407, 421, 461, or any of 470 series .....	4
Approved foreign language, 2 semesters .....	(4) <sup>2</sup> + 4
Music 363 .....	2
	<u>40</u>

MUSIC MAJOR – PIANO PEDAGOGY SPECIALIZATION

Music 140-340 or 440, principal field, 8 semesters .....	20-28
Music 398-1 or 498-2 .....	1-2
Music 461, 479, 499 .....	10
Approved music electives .....	0-9
	<u>40</u>



MUSIC MAJOR – MUSIC THEORY-COMPOSITION SPECIALIZATION

Music 140-340, principal field, 6 semesters .....	12
Music 407, 421 .....	4
Music 280 .....	4
Music 480, 481, or 499 .....	8
Music 470 series .....	5
Approved music electives, 300 level or above .....	7
	<hr/> 40

MUSIC MAJOR – MUSIC BUSINESS SPECIALIZATION

<i>General Education Requirements</i> .....	45
Including Music 102 and ensemble as GE-C substitutes	
<i>Requirements for Major in Music with Music Business Specialization.</i> .....	75
Accounting 220, 230 .....	6
Management 304 .....	3
Economics 215 .....	3
Finance 280 .....	3
Marketing 304, 363, 401, 438 .....	12
Music 104a, b, 105a, b .....	8
Music 305 .....	2
Music 374, 375 .....	6
Music 420 .....	1-2
Music 040-240, 4 semesters .....	4-8
Music 030, 2 semesters (or waiver by examination) .....	2
Music 031 (or waiver by examination) .....	1
Six semesters chosen from 011, 013, 014, 017, 020, 021, 022 ..	(3) <sup>2</sup> + 3
Music 032-1, 033-1, 034-1, 035-1, 036-1 .....	5
Music electives .....	11-16
Electives selected from GE-A 101, Music 036,	
Music 373, Physics 325, 355, or intern-cooperative training.	
<i>Total.</i> .....	<hr/> 120

**Bachelor of Music Degree, College of Communications and Fine Arts or  
Bachelor of Science Degree, College of Education**

MUSIC MAJOR – MUSIC EDUCATION SPECIALIZATION<sup>4</sup>

<i>General Education Requirements</i> .....	45
Including GE-B 202, GE-B 212 or 301, and Music 102 and ensemble as GE-C substitutes	
<i>Requirements for Major in Music</i> .....	57
Theory: Music 104a,b; 105a,b; 204, 205; 207; 321, 322 .....	19
History-Literature: Music 102, 357a,b .....	(2) <sup>2</sup> + 6
Major performing ensembles .....	(3) <sup>2</sup> + 2
Music 140-340, principal field, 6 semesters .....	12
Music 398 .....	1
Music 031 (or waiver by examination) .....	1
Music 304 .....	2
Music education specialization .....	12
Music 030 <sup>3</sup> .....	2
Music 032, 033, 034, 035 .....	4
Music 305, 318, 324 .....	6
Or	
Music 030 .....	4

Music 317, 325.....	4
Music 306 or 032-036 series.....	2
Music 363.....	2
<i>Professional Education Requirements</i> .....	25
See Teacher Education Program, page 83.	
Music 304 and 306 substitute for Education 312.	
<i>Total</i> .....	127

<sup>1</sup>In the jazz performance specialization, Music 371 and three additional hours approved by the School of Music are required as substitutes for Music 321 and 322.

<sup>2</sup>GE-C substitutes.

<sup>3</sup>In the jazz performance specialization, Music 357a or b and Music 372 are required.

<sup>4</sup>Exception for performing ensembles in music education specialization. In the jazz performance specialization only, jazz ensemble is a major performing ensemble in the junior and senior years.

<sup>5</sup>Exceptions for Music 030 and consequent credit hour adjustment in keyboard performance and instrumental music education specialization.

## Bachelor of Arts Degree, College of Communications and Fine Arts

The Bachelor of Arts degree is individually tailored to meet the needs and educational goals of each student pursuing it. Of the 40 hours in music necessary to complete this degree, required courses are Music 102, 104a,b, 105a,b; four semesters (two each) of 140 and 240; performing ensembles, four semesters, four hours (not to exceed eight hours). In addition, at least one year of foreign language is required. This can be met by one of the following: (a) passing an 8-hour 100-level sequence in one language; (b) by earning 8 hours of 100-level credit in one language by proficiency examination; or (c) completing three years of one language in high school with no grade lower than C. The remainder of the courses necessary to complete the degree program are selected by the student with the approval of the student's faculty sponsor and the undergraduate committee. At least forty hours toward the B.A. degree must be at the 300-400 level. This planning should be done during the first semester of the student's admittance to the School of Music with undergraduate committee approval secured by no later than the end of the second semester. Changes may be made if agreed upon by the student, the undergraduate committee, and the student's faculty sponsor. Students must comply with the studio hour and recital attendance requirements listed under general requirements in music.

### Minor

The minor in music includes Music 102, 030a,b, 104a,b, 105a,b, 357a,b; two semesters of performing ensembles, two hours; and two semesters of 040 or 140, four hours for a total of 24 credits. Students must comply with the studio hour and recital requirements listed above.

### Courses

**011-1 to 8 (1 or 2, 1 or 2, 1 or 2) Marching Salukis.** Fall semester only. Open to all students with experience in bands. Performs at all home football games, and one or two away. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.

**012-1 to 4 (1, 1, 1, 1) Laboratory Band.** Spring semester only. Open to all students with experience in bands. Opportunity to extend experience on one's secondary instrument, if desired. Performs at all home basketball games and functions as laboratory group for conducting students.

**013-1 to 16 (1 or 2 per semester) Symphonic Band.** Open to all students with experience in bands. Performs standard literature. Two or three concerts per year. Counts as "major ensemble," one of which must be taken each semester by resident music majors.

**014-1 to 16 (1 or 2 per semester) Concert Wind Ensemble.** A select group which performs advanced contemporary literature. Three concerts and tour per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration.

**015-1 to 16 (1 or 2 per semester) Jazz Ensemble.** For students experienced with popular literature. Concerts and tours when feasible. Prerequisite: audition prior to first registration.

**016-1 to 8 (1, 1, 1, 1, 1, 1, 1) Brass and Percussion Ensemble.** A select group, performing



literature scored for this instrumentation. Two or three concerts per year and tour as feasible. Pre-requisite: audition prior to first registration.

**017-1 to 16 (1 or 2 per semester) Symphony.** Open to all experienced string, woodwind, brass, and percussion players. Plays standard and advanced orchestral literature, performs three or four concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration.

**019-1 to 4 (1, 1, 1, 1) Laboratory Orchestra.** Spring semester only. Open to all experienced string, woodwind, brass, and percussion players with consent of instructor. Performs opera and orchestral-choral works.

**020-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Choral Union.** Open to all students who desire to sing. Study and performance of major choral-orchestral literature. Two concerts per year. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.

**021-1 to 16 (1 or 2 per semester) Chamber Choir.** Open to all experienced singers. Emphasis on advanced contemporary literature. Three or four concerts per year and tours as feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors.

**022-1 to 16 (1 or 2 per semester) Concert Choir.** A select group which performs advanced choral literature of all eras. Three or four concerts per year and tours as feasible. Counts as a "major ensemble," one of which must be taken each semester by resident music majors. Prerequisite: audition prior to first registration, and each succeeding fall.

**023-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Vocal Jazz Ensemble.** Open to all experienced singers. Emphasis on light, popular literature. Two or three appearances per year.

**024-1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) Male Glee Club.** Open to all male students who desire to sing. Serious and lighter glee club material. Frequent appearances on and off campus.

**030-4 (1, 1, 1, 1) Piano Class.** (a) Level 1, (b) level 2, (c) level 3, (d) level 4. Designed to develop functional command of basic keyboard skills needed in the further study of music and the teaching of music. Take in sequence unless assigned advanced placement by instructor. Prerequisite: major or minor in music, elementary education, early childhood education, or consent of instructor.

**031-2 (1, 1) Voice Class.** (a) Level 1, (b) level 2. Designed to develop functional command of basic vocal skills needed in teaching music. Prerequisite: consent of instructor.

**032-2 (1, 1) String Techniques Class.** (a) Upper strings; (b) lower strings. Designed to develop essential techniques and principles which can be used in teaching young string pupils. Prerequisite: music major or minor.

**033-4 (1, 1, 1, 1) Woodwind Techniques Class.** Flute, clarinet, oboe, bassoon. Designed to develop essential techniques and principles which can be used in teaching young woodwind pupils. Students may begin on one instrument and shift to another at midterm, or they may continue with the same instrument with the consent of the instructor. Prerequisite: music major or minor or consent of instructor.

**034-2 (1, 1) Brass Techniques Class.** Trumpet, french horn, trombone, tuba. Designed to develop essential techniques and principles which can be employed in teaching beginning brass pupils. Students may begin with one instrument and shift to another at midterm or they may continue with the same instrument with the consent of the instructor. Prerequisite: music major or minor.

**035-1 Percussion Techniques Class.** Designed to develop basic techniques and principles which can be employed in teaching young percussion pupils. Prerequisite: music major or minor.

**036-2 (1, 1) Guitar Class.** (a) Level 1, (b) level 2. Designed to develop basic techniques and principles which can be employed in teaching music. Prerequisite: major or minor in music, elementary education, or early childhood education, or consent of instructor.

**040, 140, 240, 340, 440, 540-1, 2, or 4 Applied Music.** Offered at six levels in the areas listed below. May be repeated for credit as long as passing grade is maintained. Student must attend both the weekly studio class in addition to performance classes as scheduled on Fridays at 10 a.m., and student must be concurrently enrolled in one of the performing groups. Prerequisite for 040: satisfactory completion of beginning class instruction offered in that area, or the equivalent. Prerequisite: for 140: three or more years of prior study or performing experience, or two semesters of C or better at 040 level. Prerequisite: for 240, 340: two semesters of C or better at previous level, or consent of applied jury. Prerequisite: for 440, 540: two semesters of B or better at previous level, or consent of applied jury. Music majors and minors enroll for two credits on their principal instrument, taking one half-hour private lesson and studio class, Mondays at 10:00. Those with prior approval by their applied jury for the specialization in performance enroll for four credits, taking two half-hour private lessons and the student class each week. Non-music majors or minors, and those music majors taking a second instrument, enroll for one credit, taking one private or class lesson per week. Six hours of individual practice per week required for each lesson. For shorter sessions, credit is reduced or lesson time is increased proportionately.

- a. Flute
- b. Oboe
- c. Clarinet
- d. Bassoon
- e. Saxophone
- f. Horn
- g. Trumpet
- h. Trombone

- i. Baritone
- j. Tuba
- k. Percussion
- l. Violin
- m. Viola
- n. Cello
- o. String bass

- p. Voice
- q. Piano
- r. Organ
- s. Harpsichord
- t. Guitar
- u. Recorder
- v. Coaching



- 101-3 Music Fundamentals.** Rudiments of music for those with little or no musical background. One lecture and one piano laboratory session per week. Provides basic music vocabulary and keyboard competency for 300, 301, 302, and 303.
- 102-2 Survey of Music Literature.** Characteristic forms and styles. Analysis and listening. Examples from the leading composers of each era. Prerequisite: music major or minor.
- 104-2 (1, 1) Aural Skills.** A laboratory course designed to complement 105a and b. Practice in recognition and singing of basic pitch and rhythm materials, and their realization in standard musical notation. For those planning a major or minor in music, take a and b in sequence, or, with prior consent of instructor, concurrently.
- 105-6 (3, 3) Basic Harmony.** Study of traditional diatonic tonal materials and standard notational practice. Includes keyboard skills. For those with performing experience and planning a major or minor in music. Take a and b in sequence. Prerequisite: concurrent registration in 104 or equivalent aural skill.
- 107-1 Applied Harmony for Fretted Instruments.** Application of basic harmonic functions to the fretted instruments including guitar. Prerequisite: concurrent enrollment in guitar (140-540t) or consent of instructor.
- 140-1, 2, or 4 Applied Music.** (See 040.)
- 204-1 Advanced Aural Skills.** Continuation of 104. Designed to complement 205. Prerequisite: 104b.
- 205-3 Advanced Harmony.** Study of chromatic tonal materials, including keyboard skills. Prerequisite: 104b and 105b, and concurrent registration in 204.
- 206-3 Music as A Creative Experience.** Students experiment with various ways of creative musical sound structures, and engage in active, critical listening, as a means to a better understanding of the nature of musical experience. Not historically oriented.
- 207-2 Contrapuntal Techniques.** Basic contrapuntal principles and skills, especially as applied to 18th and 19th century styles. Extensive writing practice, and analysis of stylistic models. Introduction to major contrapuntal forms. Prerequisite: 205 and 204, or take 204 concurrently.
- 240-1, 2, or 4 Applied Music.** (See 040.)
- 250-3 The History and Literature of the Guitar and Related Fretted Instruments.** A survey of the history and literature of the guitar and related fretted instruments from the Renaissance to the present with emphasis on interpretation.
- 257-1 to 12 Intern-Work Experience.** Practical experience in music retailing, wholesaling, and publishing under the supervision of professional firms. Open only to candidates for the Bachelor of Music degree with emphasis in music business.
- 280-2 to 4 (2, 2) Beginning Composition.** Application of contemporary compositional techniques. Prerequisite: 105b or consent of instructor.
- 304-2 The General Music Program.** Survey of problems and methods in teaching music in the schools, with scheduled observations of school music programs in operation. Special attention given to the teaching of comprehensive musicianship through the general music program in the junior and senior high school. Also includes undergraduate history and philosophy of music education. Prerequisite: admission to the Teacher Education Program.
- 305-2 Instrumental Music in the Schools.** Administration of the school instrumental music program. Emphasis upon teaching instruments and the management and instruction of instrumental organizations.
- 306-2 Music Specialist in the Elementary Schools.** Principles and methods employed in supervising and teaching the elementary school music program. Designed for music majors and minors. Prerequisite: 304.
- 317-3 Choral Conducting and Methods.** Score reading, baton techniques, and rehearsal techniques, organization and management problems of school choral groups. Prerequisite: music major or minor and junior standing.
- 318-3 Instrumental Conducting.** Score reading, baton techniques, and rehearsal management. Supervised application in ensemble. Prerequisite: music major or minor and junior standing.
- 321-2 Form and Analysis.** Comprehensive study of harmonic and formal structures and typical stylistic traits of 18th and 19th century music. Prerequisite: 204 and 207.
- 322-3 Principles of 20th Century Music.** Comprehensive study of harmonic techniques and other stylistic traits of major 20th century idioms. Prerequisite: 321.
- 324-1 Instrumental Arranging.** Practice in scoring of transcriptions, arrangements, and original compositions for standard instrumental groups. Prerequisite: 205.
- 325-1 Choral Arranging.** Practice in scoring arrangements and/or original compositions for choral groups. Prerequisite: 205.
- 331-1 Jazz Improvisation.** Ear training, phrasing in extemporaneous playing, use of chord symbols and chord progressions, special effects peculiar to jazz playing and styles of playing. Prerequisite: 205.
- 335-6 (3, 3) Jazz Theory.** Understanding of complex harmonies, harmonic substitution, polyrhythm, and melodic writing. Writing in the various jazz period styles. Writing and arranging for large and small ensembles. Take in a,b sequence. Prerequisite: 207 and two semesters of 331.
- 340-1, 2 or 4 Applied Music.** (See 040.)
- 341-1 to 8 (1 or 2 per semester) Accompanying Laboratory.** Experience, under supervision, in accompanying soloists and groups. Counts as a "major ensemble" for juniors and seniors.



**346-1 to 16 (1 or 2 per semester) Opera Workshop.** Open to all experienced singers and stage technicians. Performs one major work and two or more excerpt programs per year. Normal registration is for two credits; four credits with permission for those with major roles; eight credits for full-time summer workshop. Counts as a "major ensemble" for juniors and seniors.

**347-1 to 12 Music Theater Workshop.** For experienced singers, actors, dancers, and instrumentalists. Normally offered during summer as a full-time course, for eight credits, or one credit per show for the orchestral players. Three or four musicals are rehearsed and presented. Prerequisite: audition.

**357-6 (3, 3) Music History.** Study of musical examples and techniques evolving from the ancient period to the present. May take a or b in either order. Prerequisite: 102 and junior standing.

**363-2 (1, 1) Pronunciation and Diction for Singers.** (a) English and French, (b) German and Italian. Establishment of proper pronunciation as applied to vocal literature. Prerequisite: one or more semesters of private or class voice instruction.

**364-2 The Alexander Technique of Body Control.** A controlled discipline to counteract tension habits that are harmful to correct use of the body, particularly as they relate to music, speech, dance, and theater.

**365-1 to 48 Chamber Music.** Groups of two to sixteen performers as organized and sponsored by individual faculty members. Includes duo-piano teams, and piano in combination with other performers. Regular weekly rehearsals of appropriate music and public performance as feasible. Section (g) counts as a "major ensemble", one of which must be taken each semester by resident music majors, specializing in classical guitar and, if accepted by audition, by juniors and seniors whose principal instrument of study is the classical guitar.

a. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Vocal.**

b. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-String.**

c. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Woodwind.**

d. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Brass.**

e. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Percussion.**

f. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Keyboards.**

g. 1 to 8 (1, 1, 1, 1, 1, 1, 1, 1) **Chamber Music-Classical Guitar.**

**370-2 American Folk Music.** American folk music from its foreign heritage to its current manifestations.

**371-2 Evolution of Jazz.** Stylistic characteristics of jazz at various stages of its evolution. Societies and cultures from which it derived. Orientation is historical, sociological, and stylistic.

**372-3 The Music of Black Americans.** (Same as Black American Studies 362.) The study of the music created and produced by black people in the United States. Content ranges from work songs and spirituals through contemporary classical music. Although jazz is not ignored, primary focus is on other styles and genres. Some emphasis upon the environmental forces which shaped the music. Historically oriented.

**373-3 Rock and Pop Music.** Study of "rock" and other popular American music. Evolution of both black and white folk music is shown. Rock is studied as the merging of aspects of these two folk mainstreams. Major figures in rock are studied. Lectures, "live" and recorded demonstrations, films, and individual projects will be used.

**374-3 Commercial Music.** Introductory course for students interested in the commercial aspects of the music industry. Lectures given by outstanding executives and performers in the various segments of the industry such as management, cash show, contracts, the recording of music and video, and publishing. Students go to Nashville, Tennessee, where various activities take place, including tours of recording studios, publishing houses, performance rights societies, and video and television studios. Designed to clarify the qualifications the student must have, or develop, in order to be successful in the commercial music world. Prerequisite: major in music.

**375-3 Recording Engineering.** Specializes in recording and engineering. Intended to be a general introduction to the world of multi-track recording. Seventy percent of the course involved with basic information about sound, test equipment, microphones, recorders, signal processing equipment, consoles, noise reduction devices, and the most recent developments in the perception of sound. Thirty percent consists of actual live recording sessions and mix-down sessions. Each student given hands-on experience in recording and mixing and will receive a copy of the master tape. Prerequisite: junior music major.

**376-3 Advanced Recording Engineering.** Continues the skills developed in 375. Student familiarized with duties of the professional engineer through practical experience.

**398-1 to 2 (1, 1) Partial Recital.** Preparation and presentation of a partial recital in any applied field. Prerequisite: prior or concurrent registration in 340 and approval of applied jury.

**399-5 (1, 1, 1, 1, 1) Graduate Preparatory Seminar.** (a) Music analysis, (b) Aural techniques, (c) Pre-Baroque, (d) Baroque and Classical, (e) Romantic and Modern. Designed to supply understanding and skills where deficiencies have been shown by the graduate proficiency examinations in music. Part or all may be taken in any sequence. Prerequisite: prior assignment by graduate committee in music.

**400-1 to 2 (1, 1) Performance Techniques.** Individual instruction in any secondary applied field. Designed to provide added depth of preparation for teaching instrumental and vocal music. Prerequisite: completion of 340 level or the equivalent in some field of applied music.



**407-2 Modal Counterpoint.** Study of Renaissance contrapuntal techniques. Extensive writing practice, and analysis of stylistic models. Prerequisite: 207.

**414-1 to 8 (1 to 2 per semester) Collegium Musicum.** For experienced singers and instrumentalists. Emphasis upon practical study of historical music literature of the Medieval, Renaissance, and Baroque eras. Counts as a "major ensemble" for juniors and seniors.

**420-1 to 2 (1, 1) Instrument Repair.** A shop-laboratory course dealing with the selection, tuning, adjustment, maintenance, and repair of musical instruments.

**421-2 Advanced Analysis.** Structure, form, and design in music as the coherent organization of all of its factors. Analysis of works chosen from a variety of styles and genres. Prerequisite: 321.

**430-1 Jazz Arranging.** Methods of scoring for popular groups. Practice in scoring arrangements and/or original compositions for jazz ensembles. Prerequisite: 324 or prior consent of instructor.

**440-1, 2, or 4 Applied Music.** (See Music 040.)

**447-4 (2, 2) Electronic Music.** (a) Introduction to classical studio equipment and techniques; use of voltage controlled equipment. Individual laboratory experience available. (b) Emphasis upon creative projects, more sophisticated sound experimentation, and analysis. Enrollment limited. Must be taken in a,b sequence. Prerequisite: 280 or consent of instructor.

**453-2 to 4 (2 per semester) Advanced Topics in Choral Music.** Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. For experienced teachers and advanced students.

**454-2 to 4 (2 per semester) Advanced Topics in Instrumental Music.** Practicum in the selection, rehearsal, and performance of appropriate literature. Study of techniques for achieving proficient performance and musical growth. Designed for experienced teachers and advanced students.

**455-2 to 4 (2 per semester) Advanced Topics in Elementary School Music.** Practicum in the selection and use of materials for the elementary school program. Study of techniques for achieving balanced musical growth. For experienced teachers and advanced students.

**456-4 (2, 2) Music for Exceptional Children.** (Same as Special Education 456.) (a) Theories and techniques for therapeutic and recreational use of music with physically and mentally handicapped children. Includes keyboard, autoharp, guitar, and tuned and untuned classroom instruments. (b) Applications for the gifted, emotionally disturbed, and culturally disadvantaged child. Take in sequence. Prerequisite: 302 or prior consent of instructor.

**460-3 Music Aesthetics and Appreciation.** The significance of music for people. Critical theories in the writings of philosophers of music and art from Plato through Dewey and Cage are related to principles and methods for communicating an understanding of music in schools and in society.

**461-3 Applied Music Pedagogy.** Specialized problems and techniques employed in studio teaching of any particular field of music performance. Study of music literature appropriate for the various levels of performance. Opportunity, as feasible, for supervised instruction of pupils. Meets with appropriate instructor, individually or in groups.

**468-2 to 4 (2, 2) Music Productions.** Practicum in the techniques for staging operas and musicals.

**472-2 Chamber Music Literature.** A study of literature for the principal types of chamber music groups.

**475-3 Baroque Music.** The development of vocal and instrumental music in the period 1600-1750, from Monteverdi to Bach and Handel. Oratorio and Cantata, the influence of opera, sonata, suite, and concerto. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

**476-3 Classical Music.** Development of the sonata, symphony, concerto, and chamber music in the 18th and early 19th centuries, with emphasis on the music of Haydn, Mozart, and Beethoven. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

**477-3 Romantic Music.** Development of the symphony and sonata forms, chamber music, and vocal music in the 19th and early 20th centuries. Rise of nationalism and impressionism. Prerequisite: For undergraduate enrollment: 357a or b. For non-music majors: prior consent of instructor.

**479-2 to 4 (2 per topic) Solo Performance Literature.** Topics presented will depend upon the needs of students and upon instructors scheduled. (a) Piano literature, including an introductory study of harpsichord music; (b) organ literature, in relation to the history of the instrument; (c) song literature; (d) guitar and lute literature; (e) solo string literature; (f) solo wind literature.

**480-2 to 4 (2, 2) Advanced Composition.** Original composition involving the larger media. Individual instruction. Prerequisite: 280-2 to 4 or consent of instructor.

**481-1 to 4 Readings in Music Theory.** Assigned readings and reporting of materials pertaining to a particular phase of music theory in historical perspective. Approximately three hours' preparation per week per credit (adjusted for shorter sessions). Prerequisite: 321 and 322 or prior consent of instructor.

**482-1 to 4 Readings in Music History and Literature.** Assigned readings and reporting of materials pertaining to a particular phase of history or literature. Approximately three hours preparation per week per credit. Prerequisite: 357a and b, or prior consent of instructor.

**483-1 to 4 Readings in Music Education.** Assigned readings and reporting of materials per-



taining to a particular phase of music education. Approximately three hours preparation per week per credit (adjusted for shorter sessions.)

**498-2 to 4 (2, 2) Recital.** Preparation and presentation of a full solo recital in any applied field. Prerequisite: prior or concurrent registration in 440 and approval of applied jury.

**499-1 to 8 Independent Study.** Original investigation of selected problems in music and music education with faculty guidance. Project planned to occupy approximately three hours preparation per week per credit (adjusted for shorter sessions). Prerequisite: prior consent of selected instructor.

**500-1 to 6 Independent Investigation.**

**501-3 Music Bibliography and Research.**

**502-4 (2, 2) Analytic Techniques.**

**503-3 Scientific Evaluation and Research in Music.**

**509-2 History and Philosophy of Music Education.**

**535-2 Contemporary Idioms.**

**540-1, 2, or 4 Applied Music.**

**545-3 Pedagogy of Music Theory.**

**550-2 School of Music Administration and Supervision.**

**556-2 to 4 (2, 2) Advanced Conducting.**

**566-1 to 12 (1 per semester per group) Ensemble.**

**567-1 to 8 Music Theater Workshop.**

**568-1 to 16 (1 to 8 per semester) Opera Workshop.**

**570-3 History of Opera.**

**573-3 Medieval Music.**

**574-3 Renaissance Music.**

**578-3 Twentieth Century Music.**

**580-2 to 4 (2, 2) Graduate Composition.**

**595-2 Music Document.**

**598-4 Graduate Recital.**

**599-2 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Nursing

(SEE ASSOCIATE DEGREE NURSING)

## Nursing (Preprofessional Program)

The School of Nursing of Southern Illinois University at Edwardsville offers a program of study leading to a Bachelor of Science degree in nursing. The program is accredited by the National League of Nursing. The curriculum is designed to prepare qualified individuals to function competently as beginning professional nurse practitioners; to participate in providing a broad scope of health care in a variety of settings; to obtain a foundation for continued growth and graduate education. Professional nursing practice is broad in scope and serves individuals in a multiplicity of settings; thus the professional nurse functions in both traditional and non-traditional situations which may require conventional or innovative patterns of practice.

The first three semesters of the program may be completed at Southern Illinois University at Carbondale. During this time, the student must successfully complete all courses prerequisite to the nursing major. The student should then transfer to Southern Illinois University at Edwardsville. Admission to the university does not guarantee acceptance into the School of Nursing. Admission criteria for the school include (1) successful completion of prerequisite courses with grades of *C* or above, (2) minimum overall grade point average of 2.50, and (3) completed application on file in the School of Nursing within the time deadline. Students are admitted to the School of Nursing every quarter during the academic year. Information concerning required courses is available at the Undergraduate Academic Services Advisement Center in Woody Hall, Wing C.

## Occupational Education

(SEE VOCATIONAL EDUCATION STUDIES.)

### Paralegal Studies for Legal Assistants (Major)

The program leads to the Bachelor of Science degree in paralegal studies for legal assistants. It prepares the graduate to function as a paraprofessional in the legal profession and as a legal assistant in private practice, legal aid offices, or the law-related operations of business, industry, education, or government.

In overall philosophy as well as in curriculum content and format, the paralegal studies for legal assistants program is based on the proposed *Curriculum for the Training of Law Office Personnel* as stated by the American Bar Association Special Committee on Legal Assistants. The program has two components: a core of legal specialty, administration, and communication skills courses to provide professional competency and a range of social science and humanities courses to provide the intellectual background for the student's future professional life including an understanding of law and its function in society.

Qualified students may be admitted to the Capstone program with a major in paralegal studies for legal assistants. The Capstone program is explained in Chapter 3.

#### Bachelor of Science Degree, College of Liberal Arts

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See page 94)</i> .....	(7) + 7
<i>Requirements for Major in Paralegal Studies for Legal Assistants</i> .....	55
Paralegal Courses .....	27
Paralegal Studies for Legal Assistants 300, 310, 320, 330..	12
Political Science 330 or Finance 370 (general law) .....	3
Finance 323 (real estate law) .....	3
Nine hours selected from those listed below .....	9
Political science 334 (criminal law)	
Political science 330 or Finance 370 if not selected for	
the general law requirement above (general law)	
Accounting 240 or 341 (income taxation)	
Accounting 441 (advanced taxation)	
Finance 320 (real estate)	
Finance 280 and 380 or approved substitute (business law)	
Paralegal Studies for Legal Assistants 340, internship.	
Students who take the internship will be required to	
work ten hours a week for one semester for each three	
hours of credit. A student may earn 12 hours of	
internship credit but not more than three will count	
toward the major.	
Administration Related Courses .....	10
Secretarial and Office Specialties 220 .....	4
Accounting 210 or approved substitute .....	3
Computer Science 102, Computer Information Processing 109,	
Secretarial and Office Specialties 223 or 240 .....	3
Liberal Arts Courses .....	18
Two upper-division courses in one social science department	



and one humanities department. The remaining hours may be taken in either field. General education courses numbered 300 or above may be counted.

<i>Electives</i> .....	13
<i>Total</i> .....	120

At least fifteen hours in paralegal studies for legal assistants courses must be taken at Southern Illinois University at Carbondale.

**Minor**

A minor in paralegal studies for legal assistants requires 15 hours in law courses. Paralegal studies for legal assistants 300 is required.

**Courses**

- 300-3 Introduction to Legal Analysis, Research and Writing.** After examining the litigation process and the structure of federal and state court systems, students will be introduced to case and statutory analysis. Legal research techniques and citation form will be covered in depth. Several legal writing projects will be required, some of which will involve the use of the law library. The role of paralegals and ethical constraints on the profession will be discussed throughout the course.
- 310-3 Civil Procedure.** Students will examine the lawyers' and paralegals' roles in handling civil cases, and the means by which the objectives of litigation may be achieved. Strategy and mechanics of civil procedure will be explored in depth, and students will be required to prepare a complaint, discovery requests, and initial appellate documents.
- 320-3 Estates and Trusts.** Students will study the more common forms of wills and trusts and the fundamental principles of law applicable to each; the course will analyze the administration of estates under the Illinois Probate Act.
- 330-3 Legal Forms of Business Organizations.** Includes a review of the lawyer's role in the formation of business entities, including sole proprietorship, partnerships, and corporations, with a survey of the fundamental principles of law applicable to each and the preparation of documents necessary to the organization and operation of each. The student will be prepared to draft articles of incorporation and other legal documents relevant to the role of a paralegal in a modern law office.
- 340-1 to 12 Internship in Paralegal Studies.** Supervised on-the-job training and experience in public or private offices typically employing paralegals. Student must work ten hours per week for fifteen weeks for each three hours of credit. Only three hours of internship credit applicable to major requirements. Prerequisite: formal application from student, accompanied by letter or support from supervisor, and consent of coordinator of paralegal studies program.

**Philosophy** (Department, Major, Courses)

The student electing to major in philosophy should consult the department's director of undergraduate studies, who will then assign an adviser. Prospective students are advised to take at least one philosophy course at the 100 or 200 level.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See page 94)</i> .....	(4) + 8-14
<i>Requirements for Major in Philosophy</i> .....	28
Philosophy 304 and 305 .....	6
At least two of the following: Philosophy 300, 306 320, 340, 342 ...	6
At least two 400-level philosophy courses .....	6-8
Philosophy electives to complete 28 hours, 6 of which may be selected from the 100 and 200 level.....	8-10
<i>Minor</i> .....	15
<i>Electives</i> .....	18-24
<i>Total</i> .....	120

## Minor

A minor in philosophy requires 15 hours, 6 of which may be selected from philosophy courses offered at the 200 level and 6 of which should be selected from the courses listed above for the major. Philosophy 304 and 305 are recommended.<sup>1</sup>

<sup>1</sup>Students completing a minor in philosophy for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

## Honors

Honors in philosophy will be granted to eligible majors who successfully complete two semesters of Philosophy 397, maintain a 3.25 average in philosophy and a 3.00 overall grade point average, and have their written work in one Undergraduate Philosophy Seminar approved by a faculty committee.

## Courses

**200-3 Types of Philosophy: An Introduction.** Survey of the traditional branches and problems of philosophy, such as religion, metaphysics, epistemology, ethics, political theory, aesthetics, and history.

**202-3 Philosophical Perspectives on Death and Dying.** The great philosophers of East and West are studied on pressing questions such as the definitions of death, personhood, and human value; the right to die and to kill; treatment of human dead and dying; and whether life after death is conceptualizable or ethically important.

**206-3 Philosophies of the Person.** A survey and examination of selected theories of human nature, beginning with ancient and medieval philosophies and continuing into modern times with some consideration of scientific and ideological accounts.

**207-3 Aesthetics.** The structure and importance of the beautiful in nature, society, personality, and the arts.

**214-3 Oriental Philosophies.** Examination of world outlooks and life outlooks of major Oriental philosophic traditions: Hinduism, Buddhism, Confucianism, and Taoism.

**242-3 Morality and Law.** An introduction to the moral issues raised and resolved by law creation and adjudication by legislators, judges, and administrative agencies at the state, national, and international level.

**245-3 Sexual Morality.** An examination of the relationship between various sexual practices and morality, including an examination of the functions of sex and the relationship between sex and love. Discussions will include such issues as monogamy, premarital sex, homosexuality, and rape.

**260-3 Philosophy and Literature.** An exploration of leading philosophical themes and issues in significant works of literature, the course seeks to discover in what manner the literary medium contributes uniquely to our understanding of humanity in relation to the world.

**275-2 Environmental Ethics.** A consideration of alternative views about our relations to nature and the obligations, if any, that we have toward nature, future generations of people, and people in other countries. Examples from contemporary controversies about nuclear power, wilderness areas, etc., will be used to illustrate the views in question.

**290-2 to 5 Special Problems.** Individual or small group study of topics mutually agreed to by an instructor and students. Special topics announced from time to time. Students are invited to suggest topics.

**300-3 Elementary Metaphysics.** Presentation of answers to the most general problems of existence. An attempt to unify all scientific approaches to reality through the laying down of common principles.

**301-3 Philosophy of Religion.** (Same as Religious Studies 301.) An analysis of problems in the psychology, metaphysics, and social effects of religion. Among topics discussed are the nature of mystical experience, the existence of God, and problems of suffering, prayer, and immortality.

**304-3 Ancient Philosophy.** Survey of western philosophy from the pre-Socratics, Plato, and Aristotle through the Middle Ages.

**305-3 Modern Philosophy.** A survey of western philosophy from Bacon and Descartes through Kant.

**306-3 Nineteenth Century Philosophy.** Survey of 19th century European philosophy. Topics to be selected from the following: Hegel's philosophy; the subsequent reactions to Hegelianism in the forms of positivism, Marxism, and existentialism; British utilitarianism and idealism; neo-Kantian philosophies; and evolutionist philosophies.

**313-3 Classical Chinese Philosophy.** Historical and comparative study of Confucianism, Taoism, Maoism, and Legalism.

**314-3 Modern Chinese Philosophy.** Historical and comparative study of Mahayana Buddhism, Neo-Confucianism, and Maoism.



**320-3 Deductive Logic.** Main forms of deductive inference. Emphasis on the use of the symbolism of modern logic to evaluate inferences.

**340-3 Ethical Theories.** Nature of ethics and morality, ethical skepticism, emotivism, ethical relativism, and representative universalistic ethics. Bentham, Mill, Aristotle, Kant, Blanshard, and Brightman.

**342-3 Legal and Social Philosophy.** Discussion of contemporary institutions designed to achieve socially desirable goals (e.g., guaranteeing equality of opportunity, protecting individual liberties, assuring a fair distribution of wealth, minimizing violent behavior) and the philosophical theories that serve as the foundation for the continued existence or reform or abolition of these institutions (e.g., the theories of Hobbes, Marx, Mill, and Marcuse).

**344-3 The Biomedical Revolution and Ethics.** Changes in biology and medicine have brought into sharp focus such problems as allocation of scarce medical resources, use of human subjects in experiments, abortion, euthanasia, genetic screening, truth-telling in medical practice, moral rights of patients and other matters. This course brings ethical principles to bear on these issues.

**355-3 Philosophy of Education.** (See Educational Leadership 354.)

**362-3 Science and Technology in Western Societies.** A study of the development and significance of science and technology in the shaping of western societies since the scientific revolution. Historical, philosophical, and sociological perspectives will be used to understand the relationships between science and technology and between these and other cultural and religious values.

**371-3 Introduction to Contemporary Phenomenology.** Introductory survey of individual thinkers and questions in the contemporary phenomenological tradition: Husserl, Sartre, Merleau-Ponty, Levinas, and Ricoeur.

**375-3 Philosophical Foundations of Ecology.** Study of the conceptual foundations of the ecological or environmental outlook, the differences that may exist between those foundations and other philosophical frameworks, and the possible changes in general patterns of thought that may result from the increasing importance and widening application of ecological sciences.

**378-3 Introduction to Marxist Theory.** An introduction to Marxist historical method and its effects on social theory, politics, aesthetics, literary criticism, psychology, philosophy, and economics. Classical texts from Lukacs to Althusser and examinations of critical questions in the social sciences provide the topics of the course.

**389-3 Existential Philosophy.** Surveys the two main sources of existentialism, the life philosophies of Kierkegaard and Nietzsche and the phenomenology of Husserl, and introduces the major philosophical themes of representative thinkers: J.P. Sartre, M. Heidegger, G. Marcel, and others.

**390-3 Contemporary American Thought.** Introductory survey of the main currents of contemporary philosophy in America and their relevance for legal, political, and educational developments.

**397-6 (3, 3) Undergraduate Philosophy Seminar.** Small group discussion of topics in philosophy.

**400-3 Philosophy of Mind.** An investigation of the philosophic issues raised by several competing theories of mind, focusing on the fundamental debate between reductionistic accounts (e.g., central state materialism, identity theories of the physical and mental) and views which reject such proposed reductions. Traditional and contemporary theories will be examined. Designed for students in the life and social sciences with little or no background in philosophy as well as philosophy students.

**415-3 Logic of Social Sciences.** (Same as Sociology 415.) Logical and epistemological examination of the social sciences as types of knowledge. Basic problems in philosophy of science with major emphasis upon social science: relationship of theory to fact, nature of induction, nature of causal law, testability, influence of value judgments, etc. Intended for students with considerable maturity in a social science or in philosophy.

**420-3 Advanced Logic.** Study of topics in logical theory and/or formal logic not treated in 320. Prerequisite: 320.

**425-3 Philosophy of Language.** (Same as Speech Communication 465.) Introduction to basic problems in the philosophy of language, including alternative theories of meaning and reference and the relation between meaning and intention.

**430-3 Epistemology.** An introduction to basic problems in epistemology, including the nature, sources, and units of knowledge, the debates concerning foundationalism, correspondence versus coherence theories of truth and perception.

**435-4 Philosophy of Science.** Critical survey of influential description of scientific method and theory construction. Topics include the relationship between observation and theory confirmation, explanation, and prediction, theory of change and discovery, view of scientific rationality. Historical cases will serve to focus the discussions.

**441-4 Philosophy of Politics.** (Same as Political Science 403.) Some of the central problems of modern political life, such as sovereignty, world government, authority and consent, the relation of economic and social studies to political theory. Prerequisite: 340 or GE-C 102 or consent of instructor.

**443-4 Philosophy of History.** Classical and contemporary reflections on the nature of history and historical knowledge as the basis for dealing with the humanities. Prerequisite: consent of instructor.

- 446-3 Philosophical Perspectives on Women.** (Same as Women's Studies 456.) Survey of five different views of the relation of the concept of women to the philosophical concept of Human Nature.
- 460-4 Philosophy of Art.** The definition of art, its relation to science, culture and morals; the various types of art defined. Familiarity with at least one of the fine arts is assumed.
- 470-6 (3, 3) Greek Philosophy.** (a) Plato; (b) Aristotle. Prerequisite: 304 or consent of instructor.
- 471-4 Medieval Philosophy.** Prerequisite: 304 or consent of instructor.
- 472-4 The Rationalists.** Study of one or more of the following: Descartes, Malebranche, Spinoza, Leibniz, Wolff. Prerequisite: 305 or consent of instructor.
- 473-6 (3, 3) The Empiricists.** (a) Locke; (b) Hume. Prerequisite: 305 or consent of instructor.
- 474-9 (3, 3, 3) 19th Century Philosophers.** (a) Kant; (b) Hegel; (c) Marx. Prerequisite: 306 or consent of instructor.
- 475-3 Chinese Philosophy.** Confucianism, Taoism, or Buddhism. Emphasis on comparison of philosophy East and West.
- 477-3 Latin American Philosophy.** A survey of philosophic thought in Latin America from colonial times through 19th century positivism and the reactions against it, up to recent trends. Reading of original texts in Spanish and English translation. Discussions and reports.
- 482-3 Recent European Philosophy.** Philosophical trends in Europe from the end of the 19th Century to the present. Phenomenology, existentialism, the new Marxism, structuralism, and other developments. Language, history, culture and politics.
- 486-3 Early American Philosophy.** From the Colonial period to the Civil War.
- 487-3 Recent American Philosophy.** Thought of realists, idealists, and pragmatists, such as Royce, Santayana, Peirce, James, Dewey, and others.
- 490-2 to 8 Special Problems.** Hours and credits to be arranged. Courses for qualified students who need to pursue certain topics further than regularly titled courses permit. Special topics announced from time to time. Students are invited to suggest topics. Prerequisite: consent of department.
- 491-1 to 3 Undergraduate Directed Readings.** Supervised readings for qualified students. Open to undergraduates only. Prerequisite: consent of instructor.
- 496-2 to 4 Independent Studies in Classics.** (See Classics 496.)
- 500-3 Metaphysics.**
- 501-3 Philosophy of Religion.**
- 503-3 Philosophical Ideas in Literature.**
- 515-3 Theory of Nature.**
- 524-6 (3, 3) Analytic Philosophy.**
- 530-3 Theory of Knowledge.**
- 531-3 Whitehead.**
- 542-3 Political and Legal Philosophy.**
- 545-3 Ethics.**
- 560-3 Aesthetics.**
- 562-3 Philosophy of Human Communication.**
- 570-3 American Idealism.**
- 575-3 to 9 (3 per topic) Contemporary Continental Philosophy.**
- 577-6 (3, 3) Pragmatism.**
- 581-3 Plato.**
- 582-3 Aristotle.**
- 587-3 Kant.**
- 588-3 Hegel.**
- 590-2 to 12 (2 to 4 per topic) General Graduate Seminar.**
- 591-1 to 16 Readings in Philosophy.**
- 595-2 Teaching Philosophy.**
- 599-2 to 6 Thesis.**
- 600-3 to 32 (3 to 16 per semester) Dissertation.**
- 601-1 to 12 per semester Continuing Research.**

## Photographic Production Technology (Program, Major)

The photographic production technology program in the School of Technical Careers is a two-year program recognized by Photo Marketing Association International.

Technical photographic courses are designed to prepare students as photographic laboratory technicians or photo finishers in industrial and commercial photographic processing agencies. Emphasis is placed on quality black and white and color photographic processes and materials. Students will study photographic techniques in lecture/laboratory sessions and tour industrial and commercial pho-



tographic processing agencies to obtain practical understanding of commercial systems. The student should expect to invest approximately \$600 for the production of a portfolio and for the purchase of special photo chemicals and supplies. Students are to provide their own fully adjustable cameras.

The following representatives of the profession serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current advisers are: Oscar Fisher, president, Oscar Fisher Company, Newburgh, N.Y., Sam Fox, president, Ethol Chemical Company, Chicago, Ill.; Don Beyer, director, photographic services, Standard Oil, Chicago, Ill.; David Goldstein, president, D.O. Industries, Rochester, N.Y.; Jeannie Krettler, photographic department, Television City, Los Angeles, Ca.; Dale Plank, president, Plant Photographic, Inc., St. Charles, Mo.

Students will find job opportunities throughout industry for quality technicians. Graduates are limited only by their own talent, motivation, and willingness to move to where jobs are available. Job pay is directly commensurate with the technician's ability, resourcefulness, and drive.

A minimum of 65 credit hours is required for the major in photographic production technology. This associate degree program can be completed in two academic years at the University or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

Requirements for Major in Photographic Production Technology

GE-A 106 .....	3
GE-D 101, 152 .....	6
Finance 300 .....	3
Computer Information Processing .....	3
Secretarial and Office Specialties 100.....	2
School of Technical Careers 105a.....	2
Photographic Production Technology 111, 113, 115, 209, 211, 215, 221, 251a,b .....	46
Total.....	65

Courses

- 109-2 Illustration and Product Photography.** An introductory photography course specifically designed for commercial graphics – design majors. Instruction which will emphasize product photography will include a study of camera controls, films, and lighting techniques. Polaroid film will be the primary photographic material used in this course. Lecture one hour, lab four hours.
- 111-4 Photo Processing I.** Introduction to photo processing via the medium of black and white photography. Students will receive extensive darkroom work, film processing chemistry, and technical photographic assignments essential to the production of quality black and white prints. Lecture two hours, lab four hours.
- 113-4 Photo Processing II.** An introduction to sensitized materials, processing techniques and quality control procedures in common use within the photofinishing industry. Students will perform basic sensitometric and quality control procedures to a variety of black and white and color material.
- 115-4 Photo Equipment Operation.** An introduction to the equipment and operation of commercial photofinishing labs. Students will gain experience in operation, maintenance and troubleshooting on various types of processing and printing equipment. Lecture two hours, lab four hours.
- 209-4 Graphics for Photography.** Students will develop basic skills in print finishing, retouching and restoration for black and white and color materials. The course is designed to acquaint students with current techniques and processes used by commercial processing labs. Lecture two hours, lab four hours.
- 211-6 Photo Processing III.** Color reversal material. An advanced course dealing with material. Students will be involved with processing and finishing techniques common to the photofinishing industry. Lecture two hours, lab six hours. Prerequisite: 113 and 115.
- 215-6 Photo Processing IV.** Students will process and print color negatives using commercial lab techniques. Emphasis will be placed on quality control in film processing, chemical replenishing, and distribution of final product. Lecture three hours, lab six hours.
- 221-6 Photo Processing V.** Advanced black and white photo processing. Students will refine

skills necessary for quality film processing and printing requirements of both small individual photo labs and commercial labs. Emphasis will be on methods essential to meet specialized customer requirements. Lecture three hours, lab six hours. Prerequisite: 111.

**251-1 to 12 (1 to 3, 2 to 9) Photo Lab Management.** Students will study the personnel and financial aspects of operating a commercial photo lab. Field trips will be taken to industrial, commercial, and general photo agencies to obtain first-hand knowledge of operations. An industrial planning package is required by each student. (a) Lecture one to three hours, (b) lab four to eighteen hours. Prerequisite: program adviser's committee consent.

## Physical Education (Department, Major, Courses)

The Department of Physical Education offers programs which qualify graduates for positions as teachers in elementary and secondary schools or for alternative careers in private, industrial, and public settings. Whatever the student's career aims may be, the programs provide a full range of intriguing and challenging professional opportunities in diversified curricula. The student can choose a discipline best suited to individual interests, talents, temperament, and future plans. While studying new concepts, the student will observe the work of outstanding teachers, athletic coaches, and clinicians. Whichever direction is selected, the student will study and practice in modern facilities, with the latest equipment and will learn the most recent techniques.

*Teacher Education Specialization.* The teacher education specialization consists of courses which are designed to meet the requirements of the Illinois State Department of Education and are, in most cases, transferable to meet requirements of other states. The laboratory and classroom experiences consist of basic and applied sciences, methods of teaching, and acquisition of physical skills which include a variety of team and individual sports, exercise, and dance.

*Athletic Training Specialization.* The athletic training specialization is designed to train students to provide exemplary first-aid care for student-athletes, and administer rehabilitation, therapeutic treatment, and preventive conditioning programs under the supervision of a physician. This program prepares graduates for careers as athletic trainers in public schools, colleges, and private and industrial settings.

*Exercise Science and Physical Fitness.* This program is designed for students who wish to direct physical fitness programs in private, industrial and public settings. Preparation in this program enables the graduate to assess components of adult fitness, design individual exercise programs for the development and maintenance of physical fitness, and manage a physical fitness program. Graduates will have the foundation for continued study at the graduate level.

*Dance Pedagogy Specialization and Dance Performance/Choreography Specialization.* The dance specializations are designed to prepare the dancer in education and in the performing and choreographic arts. Students in dance can audition to become members of the Southern Illinois Repertory Dance Company, the resident company serving both faculty and students.

*Physical Education and Special Education Specialization.* Many handicapped students exhibiting learning problems also exhibit motor development deficiencies. Teachers trained in special education are responsible for delivering motor skill instruction to their students, but often lack the theoretical knowledge necessary to educate handicapped children. The Department of Physical Education offers an interdisciplinary approach to training to address this pre-service deficiency by combining work in special education and physical education. Gradu-



ates of this program are certified to teach in both areas. This allows the student to seek employment as a special education classroom teacher, a regular physical education teacher, an adapted physical education teacher, or any combination.

**Bachelor of Science Degree, College of Education**

PHYSICAL EDUCATION MAJOR – TEACHER EDUCATION SPECIALIZATION

<i>General Education Requirements</i> .....	45
GE-B 202; GE-B history or government; GE-D 101; 117, 118, or 119; GE-D 107, 153; GE-E 201 and two hours of one departmental physical education activity to substitute for GE-E	
<i>Requirements for Major in Physical Education</i> .....	(2) + 58
Core Requirements .....	22
Physical Education 115a, c, 303, 304, 320, 326; Physiology 209, 300	
Additional Physical Education Requirements .....	(2) + 36
Physical Education 100; 115b,d,e; 116a,b,c,d; 117a,b; 120a,b,c; 210; 212, 214; 301; 305; 318; 370	
<i>Professional Education Requirements</i> .....	25
See Teacher Education Program, page 83	
<i>Total</i> .....	128

PHYSICAL EDUCATION MAJOR – ATHLETIC TRAINING SPECIALIZATION

Students majoring in physical education with a specialization in athletic training must maintain the following standards to remain in the program:

1. A minimum grade point average of 2.25 at the University.
2. A minimum grade point average of 2.5 for all required course work in the athletic training specialization;
3. Obtain a grade of *B* or better in Physical Education 225;
4. Obtain a grade of *C* or better in Physiology 301;
5. Complete 1200 hours of clinical experience;
6. Be proficient in basic skills according to class level.

<i>General Education Requirements</i> .....	47
GE-A 101, 106, 118; GE-B 202; GE-D 118, 153; GE-E 201, 236 and two hours of one departmental physical education activity to substitute for GE-E	
<i>Requirements for Major in Physical Education</i> .....	73
Core Requirements .....	(2) + 17
Physical Education 115bc, 303, 304, 326, 320; Physiology 209, 300	
Additional Physical Education Requirements .....	24
Physical Education 210, 225, 226, 305, 381, 382, 325, 327, 328a,b, 355d, 370	
Additional Requirements .....	32
Physical Therapist Assistant 203, 208, Allied Health Careers Specialties 105; Health Education 334, 407, 434; Psychology 302, 303, 323; Food and Nutrition 215; Physiology 208, 301	
<i>Total</i> .....	120

PHYSICAL EDUCATION MAJOR – EXERCISE SCIENCE AND PHYSICAL FITNESS SPECIALIZATION

<i>General Education Requirements</i> .....	45
GE-A 118; GE-B 202; GE-D 101, 107, 118	

<i>Requirements for Major in Physical Education</i> .....	67
Core Requirements.....	(2) + 20
Physical Education 115a, c, 303, 304, 320, 326;	
Physiology 209, 300	
Additional Physical Education Requirements .....	12
Physical Education 380, 381, 382, 408, 420	
Additional Requirements .....	35
Accounting 210; Management 170, 202, 301 or 304, 350 or 385;	
Biology 306 or 308 or 309; Chemistry 140a, b; Computer Science	
202 or Computer Information Processing 109; Food and Nutrition	
215, 320; Physiology 208	
<i>Electives</i> .....	8
<i>Total</i> .....	120

## PHYSICAL EDUCATION MAJOR – DANCE PEDAGOGY SPECIALIZATION

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Physical Education</i> .....	70
Core Requirements .....	8
Physical Education 303, Physiology 209, 300	
Other Physical Education Requirements .....	55
Physical Education 140a,b; 150a,b; 240a,b; 250a,b;	
273a,b; 309; 313a,b; 315; 340a,b; 350a,b; 355; 416;	
312; 417; 495; additional hours of 340a,b, or 350a,b	
Other Requirements.....	(3) + 7
Music 101, Theater 217; four hours of elective dance courses	
<i>Electives</i> .....	5
<i>Total</i> .....	120

## PHYSICAL EDUCATION MAJOR – DANCE PERFORMANCE/CHOREOGRAPHY SPECIALIZATION

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Physical Education</i> .....	70
Core Requirements .....	8
Physical Education 303, Physiology 209, 300	
Other Physical Education Requirements .....	49
Physical Education 140a,b; 240a,b; 340a,b; 150a,b;	
250a,b; 313a,b; 350a,b; 273a,b; 312, 379a,b; 417,	
495; additional hours of 340a,b, or 350a,b	
Other Requirements.....	(3) + 13
Music 101, Theater 217, ten hours of elective dance courses	
<i>Electives</i> .....	5
<i>Total</i> .....	120

## PHYSICAL EDUCATION MAJOR – PHYSICAL EDUCATION AND SPECIAL EDUCATION SPECIALIZATION

<i>General Education Requirements</i> .....	45
GE-B 108 and 202 and 301; Music 101; one	
GE-C literature course; GE-D 101, 117 or 119, 152 or	
153; Mathematics 114 or equivalent to substitute for	
GE-D 107, GE-E 201 and two hours of physical education	
activity	
<i>Requirements for Major in Physical Education</i> .....	97-101
Core Requirements .....	20
Physical Education 115a,c; 303; 320; 326;	
Physiology 209, 300	



Additional Physical Education Requirements .....	15
Physical Education 115b,d, or e; 116a,b,c, or d, 210, 305, 324, 212, 214	
Professional Education Requirements .....	31
See Teacher Education Program, page 00. <sup>1</sup>	
Special Education Requirements .....	25-26
Special Education 400, 411, 423, 425 .....	10
Certification Area .....	9-10
The certification area requirements must include the specific courses approved by the department.	
Behavior Disorders: Special Education 401, 417, 430	
Learning Disabilities: Special Education 404, 419, 430	
Mentally Retarded:	
Educable Mentally Retarded: Special Education 402, 406, 418, 430	
Trainable-Severely/Profoundly Handicapped: Special Education 402, 406, 421, 431	
Curriculum, Instruction and Media 312, 315 .....	6
Electives. ....	6-9
Minimum of 6 hours unless student is emphasizing Behavioral Disorders in which case 9 hours of electives is required	
Psychology 301, 305, 307, 431	
Education Psychology 412	
Physical Education 301, 370	
Sociology 473	
Rehabilitation 406	
<b>Total</b> .....	<b>142-146</b>

<sup>1</sup>Includes eight hours of student teaching for special education and eight hours of student teaching for physical education.

Students wishing to gain experience in physical education and areas related to physical education may pursue work in aquatics, coaching, athletic training, dance, and health.

**Minor in Physical Education**

A student with a minor in physical education in secondary education must complete the following courses:

<b>Required Activity Courses</b> .....	<b>13</b>
Physical Education 115a, 115b, 115c .....	9
Two sports selected from Physical Education 116a, 116b, 116c, 116d .....	2
Two sports selected from Physical Education 117 or 120 .....	2
<b>Required Methods Courses</b> .....	<b>1</b>
Physical Education 212 .....	1
<b>Required Theory Courses</b> .....	<b>25</b>
Physical Education 210, 301, 303, 305, 320, 326, 370 .....	19
Physiology 300 .....	3
A physiology course approved by the department .....	3
<b>Total</b> .....	<b>39</b>

### Minor in Aquatics

A student must have advanced swimming skill, a current American Red Cross Advanced Lifesaving certificate, and a current Red Cross Water Safety Instructor certificate in order to enter the program. A student without those qualifications must complete GE-E 101f and Physical Education 306 and 307 in addition to the requirements listed below.

Physical Education 208, 310, 311, 355a, 418 .....	11
Eight hours selected from Physical Education 308a,b,c,d,e, or 330c .....	8
<b>Total</b> .....	<b>19</b>

### Minor in Athletic Training

Students in physical education with a minor in athletic training must complete the following requirements for retention in the minor: (1) 2.5 grade point average; (2) *B* in Physiology 300; (3) *B* in Physical Education 225; and (4) complete 800 hours of clinical experience supervised by a certified trainer at the University.

Requirements for the minor are listed below.

<i>General Education Requirements</i> .....	8
GE-B 202, GE-D 153, and GE-E 201 .....	
<i>Physical Education Requirements</i> .....	21
Physical Education 225, 303, 305, 320, 325, 326, 327, 328a,b, 355d .....	
<i>Other Requirements</i> .....	21
Psychology 303, Health Education 334 and 434, Food and Nutri- tion 215, Physical Therapist Assistant 208, Physiology 209, 300 .....	
<b>Total</b> .....	<b>50</b>

### Minor in Coaching

For a minor in coaching, a student must complete the physical education requirements and a coaching sequence described below.

<i>Physical Education Requirements</i> .....	(3) + 18
Physical Education 210, 303, 320, 326, 329, 345 .....	15
Physiology 209, 300 .....	6
<i>Coaching Sequence Requirements</i> .....	5-7.5
Select one course from each of the following categories consistent with the planned coaching sport.	
A. Physical Education 115, 116, 117, 120, 306 or proficiency in the specific sport or 170 (specific varsity sport) .....	1-3
B. Physical Education 330 .....	2
C. Physical Education 355c .....	2
D. Physical Education 360 or current official's rating .....	(0)-5
<b>Total</b> .....	<b>23-25.5</b>

### Minor in Dance

The dance minor is designed for students interested in teaching at privately owned studios, recreational organizations, or community theater programs. The minor does not, in itself, qualify a student to teach in a public school setting.

<i>Technique Courses</i> .....	16
Physical Education 140a,b; 240a,b; 150a,b; 250a,b (2 credits each) .....	



<i>Methods and Theory Courses</i> .....	14
Physical Education 273a, 312, 313a, 416; Music 101 or 035 and 102	
<i>Total</i> .....	30

Courses

- 100-2 Foundations of Physical Education.** An orientation to physical education including relationship of physical education to education and current trends and philosophies which underlie the practice of physical education and sport.
- 115A-3 Aquatics.** Designed to improve personal ability in swimming and prepare students to teach swimming and basic water safety to children and adults. Prerequisite: GE-A 101a or equivalent.
- 115B-3 Rhythms and Dance.** Designed to improve ability to appreciate basic rhythms and to teach folk, social, and square dancing.
- 115C-3 Exercise, Conditioning, and Weight Training.** Designed to improve personal fitness, introduce students to different training programs, their benefits and means of evaluation.
- 115D-3 Basic Skills, Knowledge, Strategies, and Methods of Teaching Track and Field.** Designed to introduce students to track and field events, skill analysis, teaching, and coaching.
- 115E-3 Skills, Teaching Stunts, and Tumbling in Gymnastics.** Designed to introduce students to the performance, teaching, and evaluation of the basic skills embodied in tumbling and gymnastic movements.
- 116-(1 per part) Development of Skill and Identification of Teaching Techniques of Team Sports.** (a) Basketball. (b) Soccer. (c) Softball. (d) Volleyball.
- 117-(1 per part) Development of Skill and Identification of Teaching Techniques of Racquet Sports.** (a) Badminton. (b) Tennis.
- 120-(1 per part) Development of Skill and Identification of Individual and Dual Activities.** (a) Archery. (b) Bowling. Fee \$15. (c) Golf. (d) Fencing.
- 140A-2 Beginning Modern Dance.** Technique I (semester one). Emphasis placed on proper body alignment and mechanics of breathing and phrasing, vocabulary and terminology, improvisation, and creative movement. Offered fall semester.
- 140B-2 Beginning Modern Dance.** Technique II (2nd semester). Offered spring semester. Prerequisite: 140A or GE-E 103D and consent of instructor.
- 150A-2 Beginning Classical Ballet.** Technique (semester one). An introduction to the traditional techniques of the classical dance as an academic craft and style that serves as a basis for logical physical training of the dancer, choreographer, and the teacher. Terminology employed to represent definite positions, steps, and movements to permit transmission of ideas in dance terms to offer the beginner an initial chart for understanding of traditional steps and complete phrases in the classical ballet idiom.
- 150B-2 Beginning Classical Ballet.** Ballet Technique (semester one). Continued study of the beginning syllabus with emphasis placed on center practice. Prerequisite: 150A and consent of instructor.
- 170-2-4 (2 per part) Varsity Sports.** (a) Football. (b) Basketball. (c) Track. (d) Tennis. (e) Gymnastics. (f) Baseball. (g) Golf. (h) Swimming and diving. (i) Cross country. (k) Field Hockey. (l) Softball. (m) Volleyball. Prerequisite: participation as member of a varsity team. Mandatory Pass/Fail.
- 200-2 Body Mechanics and Exploratory Movement in Physical Activities for Primary Children.** Provides a comprehensive coverage of the educational elements in basic movement education, its interpretation, analysis, terminology, structure, methods of teaching, and evaluative techniques. Observatory experiences provided.
- 201-3 Fundamental Skills and Activities of Low Organization for Children.** Presents the entire scope of the physical education program for children in the intermediate grades. Course objectives program planning, facilities, supplies and equipment, the basic activities representative of a comprehensive sports and games program, and the design of progress reports. Observatory experiences provided.
- 202-3 Physical Activities for Children and Youth.** Developing activities for motor perceptual development and skill acquisition appropriate for different age levels of children and youth. Tennis shoes required. Dress must permit ease of movement. Prerequisite: at least sophomore standing.
- 205-1 Physical Problems of the School Age Student.** Reviews the common physical disabilities which occur in children. Examines both acute and chronic injuries and diseases with reference to the type of physical activities best adopted by the physical problems. Prerequisite: Physiology 300.
- 208-3 Instructor of Swimming.** Designed to prepare the student to teach beginning swimming through lifesaving to pre-school through adult groups.
- 210-2 Motor Development.** Provides an introduction to the normal development of motor behavior in children and adolescents, biological and environmental variables which affect motor skill acquisition, and the assessment of motor development in children and youth. Particular emphasis will be on the application of this knowledge to teaching and learning situations.
- 212-1 Teaching Practicum.** Laboratory experience with children in a school, or recreational set-



ting or assisting in a GE-E course at the University. Laboratory experience may also be arranged with special populations of children. Prerequisite: 211. Mandatory Pass/Fail.

**214-3 Methods of Teaching Elementary Physical Education.** For supervisors and teachers of physical education. Curriculum planning based on grade characteristics and educational philosophy, presentation of skills including skill tests, lead-up games, stunts and tumbling, games of low organization, creative rhythms, singing games, and folk dance. Second level (advanced course 314). Tennis shoes and appropriate dress for activity required. Open only to physical education majors. Prerequisite: 210, and at least sophomore standing.

**225-2 Introduction to Athletic Training.** Designed for the non-physical education major who desires to acquire the minimum essentials for athletic training. Principle of training and conditioning, the injury conditions in various body parts, and primary treatment procedures.

**226-1 Taping Techniques.** To familiarize the student with all aspects of taping including practice taping experience for athletic injuries.

**240A-2 Intermediate Modern Dance.** Technique I (semester one). Emphasis placed on movement which is problematic to the individual. Focus placed on technique, style, and creative movement. Offered fall semester. Prerequisite: 140B and consent of instructor.

**240B-2 Intermediate Modern Dance.** Technique II (2nd semester). Continuation of 240A. Offered spring semester. Prerequisite: 240A and consent of instructor.

**250A-2 Intermediate Classical Ballet.** Ballet Technique (semester one). Progressive training toward mastery of body mechanics of the classical ballet syllabus, a continuation of syllabus work and terminology with emphasis on center practice – adagio, allegro, and movements en l'air. Prerequisite: 150B and consent of instructor.

**250B-2 Intermediate Classical Ballet.** Ballet-Technique (2nd semester). Continued study of the intermediate syllabus. Prerequisite: 250A and consent of instructor.

**255-4 (2, 2) Classic Ballet Techniques for Men.** Emphasizes stretch and strengthening exercises, alignment, and stylistic awareness. Prerequisite: 150a, b or equivalent and consent of instructor.

**257-1 to 5 Current Work Experience.** The student receives credit for current work experiences. Credit is awarded for many practical experiences and must be related to physical education and in process. Prerequisite: at least C average in physical education after 12 hours. Mandatory Pass/Fail.

**258-1 to 5 Work Experience.** The student receives credit for past work experiences. Credit is awarded for many practical experiences and must be related to physical education and already completed. Prerequisite: at least C average in physical education courses after 12 hours.

**273-6 (3, 3) Dance History.** (a) Acquaints the student with the evolution of dance from its primitive beginnings into a theatrical art form, how each civilization contributed to its development, and how each society within a civilization affected its form. (b) Acquaints the student with the role dance has had and continues to serve in the 20th century including theatrical dance, educational, and therapeutic dance. Prerequisite: 273a recommended.

**301-3 Organization and Administration of Physical Education.** Consideration of the special problems related to the organization, administration, and curriculum in physical education. Includes curriculum theory and development, facilities and equipment, personnel management, budgeting, legal liability, and public relations.

**302-2 Kinesiology of Normal and Pathological Conditions.** Force system, its relation to the mechanics of muscle action. Analysis of muscular-skeletal forces involved in physical activities. Prerequisite: Physiology 300.

**303-2 Kinesiology.** Force system, its relation to the mechanics of muscle action. Analysis of muscular-skeletal forces involved in physical education activities. Prerequisite: Physiology 300.

**304-2 Mechanical Basis of Human Movement.** Applies body mechanics with application of mechanical laws and principles to performance in physical activities.

**305-3 Physical Education for Special Populations.** An introductory course designed to provide the regular physical education teacher with the minimal competencies needed to teach the mildly handicapped student in the mainstreamed class. The course will also aid the special education classroom teacher in delivering physical education services. Prerequisite: at least junior standing.

**306-1 Advanced Swimming, Skill and Analysis.** Prerequisite: GE-E 101b or equivalent.

**307-2 Water Safety Instructor.** Methods of teaching swimming and lifesaving. American Red Cross Water Safety Instructor certificate may be earned. Bathing cap recommended. Pool suit supplied or one piece nylon tank suit required. Prerequisite: 306 and current Red Cross advanced lifesaving certification.

**308-2 to 10 (2, 2, 2, 2, 2) Instructor of Aquatics.** (a) Handicapped. (b) Skin diving. (c) Scuba diving. (d) Canoeing. (e) Swimming. Prerequisite: consent of instructor.

**309-3 Creative Movement for Children.** Curriculum planning practicum experience in using movement as a means of self-expression for the child to enhance mental, emotional, and physical development. During the first eight weeks, students will study various aspects of dance as can be applied to creative movement for children; the second eight weeks, students will work directly with children on a weekly basis. Dance attire required. Prerequisite: two semesters of modern dance.

**310-2 Aquatics Facilities Management.** Learning experiences designed to aid in the development of aquatic specialists who can efficiently work toward satisfactory solutions to the problems



inherent in functional design, operation, and maintenance of aquatic facilities that are associated with schools, municipalities, and other organizations.

**311-2 Lifeguarding.** The skills and techniques for preparing selected individuals related to the aquatic lifeguarding task and training in the specifics of being a part of the aquatic lifeguarding system. Prerequisite: pass swimming test.

**312-3 Dance Philosophies.** An extensive survey of past and present choreographers and dance specialists whose movement theories and philosophies have been most influential in the continuing creative growth of dance as an art form.

**313-4 (2, 2) Dance Composition and Improvisation.** (a) Introduction to choreography as an art form with special emphasis given to the concepts and usage of component parts of composition (space, time, and force) and improvisation as tools for choreographic studies. Prerequisite: four semesters of dance and consent of instructor. (b) Study and practice of choreographic methods of selected 20th century choreographers. Prerequisite: 313a and consent of instructor.

**314-2 Advanced Methods of Teaching Elementary Schools (Physical Education).** Prerequisite: 202 or 214.

**315-2 Methods of Teaching Dance.** Curriculum planning for the dance student, covering analysis of dance fundamentals, identifying dance terminology, movement phrasing, accompaniment for class, and lesson planning. Focus will be on the structuring of modern dance and ballet classes at the beginning level. Dance attire required. Prerequisite: two semesters of modern technique and two semesters of ballet, both above the general education level.

**316-3 Advanced Level Sports Skills: Scuba.** Prerequisite: consent of instructor.

**317-3 Advanced Level Sports Skills: Self Defense.** Prerequisite: consent of instructor.

**318-3 Motor Learning.** Study of theory and research emphasizing the psychological and neural basis of understanding the processes involved in learning motor skills. Prerequisite: GE-B 202.

**320-3 Physiological Basis of Human Movement.** Immediate and long range effects of muscular activity on the systems. Integrative nature of body functions and environmental influences on human performance efficiency. Laboratory to be arranged. Prerequisite: GE-A 209 or equivalent.

**324-2 Advanced Methods of Teaching Special Populations.** Prerequisite: 305.

**325-2 Training Room Techniques.** Intended for the student who wishes to complete a specialty as athletic trainer. Provides knowledge concerning the organization and administration of a training room, the installation and use of its modalities, and general procedures of training room operational functions. Prerequisite: Physiology 300.

**326-3 Emergency Care and Prevention of Athletic Injuries.** The theoretical and practical methods of preventing and treating athletic injuries; techniques of taping and bandaging; emergency first aid; massage; use of physical therapy modalities. Lecture and laboratory sessions. Prerequisite: Physiology 300.

**327-2 Medical Aspects of Athletic Injury.** The student will acquire an advanced understanding of the proper prevention and rehabilitation of athletic injuries. The student will also understand medical and surgical procedures and their consequent factors to be considered in treatment programs. Prerequisite: 326.

**328-2 (1, 1) Field Experience in Athletic Training.** The student will be responsible for prevention of injuries, taping, rehabilitation, evaluation, and coverage of practices and games for an intercollegiate athletic sport. Prerequisite: 327 and permission by athletic training program coordinator.

**329-3 Principles and Procedures for the Conduct of Interscholastic Athletics.** An examination of the history, values, and trends in extracurricular sports programs. A review of regulations and standards as determined by the governing bodies for men's and women's sports and an in-depth study of coaching and administrative procedures. Prerequisite: competitive experience recommended and consent of instructor.

**330-2-26 (2 per part) Techniques and Theory of Coaching.** (a) Basketball. (b) Football. (c) Swimming. (d) Baseball. (e) Track and field. (f) Wrestling. (g) Tennis. (h) Gymnastics. (i) Golf. (j) Badminton. (k) Field hockey. (l) Softball. (m) Volleyball. Prerequisite: consent of instructor.

**340A-2 to 4 (2, 2) Advanced Modern Dance.** Technique I, semester one. Emphasis on technical and style development. Students assigned work in creative movement and performance. Prerequisite: 240B and consent of instructor.

**340B-2 to 4 (2, 2) Advanced Modern Dance.** Technique II, 2nd semester. Offered Spring semester. Continuation of 340A. Prerequisite: 340A and consent of instructor.

**345-2 Psycho-Socio Aspects of Physical Education.** Provides an overview of the key sociological and psychological concepts that are applicable to athletics and to physical activity. This course is intended as an introduction to the disciplines of sociology of sport and sport psychology. Prerequisite: junior standing.

**350A-2 to 4 (2, 2) Advanced Classical Ballet.** Ballet technique, semester one. Study of the advanced classical ballet syllabus. Attention to the individual progress in center practice: adagio, allegro, steps en l'air, and enchainment. Applications of the classical technique as a means of expression as an art form. Prerequisite: 250B and consent of instructor.

**350B-2 to 4 (2, 2) Advanced Classical Ballet.** Ballet technique, 2nd semester. Continued study of the advanced syllabus. Introduction to variations sur la pointe (women) Pas de deux. Prerequisite: 350A and consent of instructor.



**355-2 to 10 (2, 2, 2, 2) Practicum.** (a) Aquatics. (b) Special Populations. (c) Coaching. Mandatory Pass/Fail. (d) Athletic Training. (e) Dance.

**360-.5 to 2 (.5 per part) Theory of Officiating.** (a) Badminton. (b) Basketball. (c) Field hockey. (d) Football. (e) Gymnastics. (f) Softball. (g) Competitive swimming. (h) Synchronized swimming. (i) Track and field. (j) Volleyball. (k) Wrestling. Prerequisite: the corresponding activity course.

**369-2 Improving Teaching Through Testing (Workshop).** Teaching aids, diagnostic measures, practices, and standardized tests for a variety of physical skills. Principles of programmed learning applied to psychomotor tasks.

**370-3 Measurement and Evaluation in Physical Education.** The theory of measurement in physical education, the selection and administration of appropriate tests of motor skills and the interpretation of results. Projects required. Prerequisite: junior standing.

**375-2 Introduction to Professional Literature in Physical Education.** An introduction to the professional literature in physical education with emphasis on the reading of research-oriented journals. Prerequisite: senior standing.

**379-4 (2, 2) Advanced Dance Composition.** Designed for the exploration of the choreographic form as related to other art forms, in order to produce dances for production. Continued studies of established choreographers' works as resource information for compositional themes. Prerequisite: 240a, b, 250a, b, 273a, b, 313a, b.

**380-2 Aerobics.** A study of theoretical and practical framework within which the concepts of aerobic fitness exist. Both an evaluation and a hands-on experience with the direct and indirect procedures commonly used to determine oxygen uptake capacity and aerobic power. A thorough discussion of the meaning of aerobic fitness as it applies to general fitness of the adult and aging person. Prerequisite: 320, junior standing, and approval of the instructor in the semester prior to enrollment.

**381-2 Exercise and Weight Control.** A theory practicum course dealing with the interrelationships of exercise and diet as factors influencing weight control. Emphasis on the practical delivery of programs of weight control in the context of adult programs of physical fitness. Prerequisite: 320, junior standing, and approval of the instructor in the semester prior to enrollment.

**382-3 Graded Cardiovascular Testing and Exercise Prescription.** A study of the controlled use of exercise to evaluate the cardiovascular function of an adult population and in specific persons of middle and older aged groups. The scientific basis of recommending exercise programs as a preventive rather than a treatment of heart disease will be stressed. Prerequisite: 320, junior standing, and approval of the instructor in the semester prior to enrollment.

**400-3 Evaluation in Physical Education.** Historical background of measurement in physical education; selection and evaluation of contemporary testing devices (predominantly tests of motor skill); structure and use of tests; administering the testing program; and statistical manipulation and interpretation and application of results.

**402-2 Organization and Administration of Intramural and Extramural Activities.** Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.

**403-3 Individualizing Physical Education Instruction for Students with Special Needs.** Designed as an introductory survey of handicapping conditions found most often in the regular class setting with implications for physical education instruction. Emphasis is placed on a diagnostic-prescriptive teaching model. Students will learn to plan, implement, and evaluate quality physical education services to handicapped students. Prerequisite: graduate standing or consent of instructor.

**407-2 Advanced Theory and Techniques in the Prevention and Rehabilitation of Athletic Injuries.** The application of scientific principles to the theoretical and practical methods of preventing and treating athletic injuries.

**408-2 Physical Fitness: Its Role and Application in Education.** An analysis of physical fitness as it relates to the total well-being of people. Specific units on the fitness parameters, hypokinetic disease and physical inactivity, stress, current level of fitness, training programs, and the beneficial aspects of regular exercise. Major emphasis is placed upon incorporating current thinking on physical fitness into the development of teaching models.

**409-3 Social Aspects of Sport and Physical Activity.** This course presents an analysis of the social implications of sport on society and includes consideration of sports in relation to sexual identifications, women, minority groups, politics, political activism, social deviance, and other related areas.

**410-3 Behavioral Analysis of Sport.** Application of sport psychology principles and theories to athletic situations in order to better understand sport related behavior. Behavioral problems related to sport are discussed, with a goal of enhancing athletic performance through the creation of a positive sport environment.

**415-1 to 6 (1 per topic) Workshop in Sports.** A concentrated experience in the latest theories and techniques of selected sports activities. Emphasis is placed on individual and team drills, instructional materials and improved teaching methods. One semester hour for each workshop. A total of four hours only of such workshop experience may be credited toward the master's degree. Workshop titles are: (a) Baseball. (b) Basketball. (c) Field hockey. (d) Football. (e) Gymnastics. (f) Soccer. (g) Softball. (h) Swimming. (i) Track and field. (j) Volleyball. (k) Tennis. (l) Athletic training.



**416-3 Current Theories and Practices in the Teaching of Dance.** Designed to aid a critical evaluation and analysis of dance as an educational tool, from creative dance for children through dance in the University curriculum. Specific techniques, creative ideas, class organization, and general evaluation will be included. Notebook required. Prerequisite: four semesters of dance technique.

**417-2 to 16 (2 semester hours per part) Concert Production Ensemble.** Practical experience in concert production. (a) Performance, (b) choreography, (c) concert publicity, (d) costume design and construction, (e) set design and construction, (f) lighting design and technical execution, (g) sound production, (h) stage management and assistant directorship. Not for graduate credit. Prerequisite: 340a, b, 350a, b; 313a, b or 379a, b; or equivalent and consent of instructor.

**418-2 Administration of Aquatics.** The study of comprehensive aquatic programs, their implementation and coordination.

**420-3 Physiological Effects of Motor Activity.** The general physiological effects of motor activity upon the structure and function of body organs; specific effect of exercise on the muscular system. Requires purchase of laboratory manual. Prerequisite: GE-A 209 or equivalent.

**444-2 to 6 Contemporary Dance Workshop.** Dance technique and theory, composition, improvisation, and production. Advanced study of the problems of choreography and production in their presentation as theater. Public performance is required. Prerequisite: one year of technique and theory or equivalent.

**450-1 to 4 (1, 1, 1, 1) Advanced Dance Technique – Classical Ballet.** Continued study of advanced techniques in the classical ballet. Methodology, theory, and performance is stressed. Attendance at no more than two on-campus dance concerts per semester is required as made available. Not for graduate credit. Prerequisite: 350a, b or equivalent, senior standing, and consent of instructor.

**493-2 to 4 Individual Research.** The selection, investigation, and writing of a research topic under supervision of an instructor. (a) Dance. (b) Kinesiology. (c) Measurement. (d) Motor development. (e) Physiology of exercise. (f) History and philosophy. (g) Motor learning. (h) Psycho-social aspects. Written report required. Prerequisite: consent of adviser and department chairperson.

**494-2 (1, 1) Practicum in Physical Education.** Supervised practical experience at the appropriate level in selected physical education activities in conjunction with class work. Work may be in the complete administration of a tournament, field testing, individual or group work with special populations, administration of athletics or planning physical education facilities. Prerequisite: consent of adviser.

**495-4 Senior Project in Dance.** Work can be taken in one of three areas: (a) pedagogy, (b) performance, (c) choreography. Not for graduate credit. Prerequisite: senior standing and consent of instructor.

**500-3 Techniques of Research.**

**501-3 Curriculum in Physical Education.**

**503-2 Seminar in Physical Education.**

**505-2 to 6 (2 per topic) Topical Seminar in Physical Education.**

**508-2 Administration of Athletics.**

**509-3 Administrative Theory and Practice in Physical Education.**

**510-3 Motor Development.**

**511-3 Analysis of Human Physical Movement.**

**512-3 Biomechanics of Human Motion.**

**513-3 Perceptual Motor Learning of Physical Skills.**

**514-3 Seminar: Motor Skills Learning and Performance.**

**515-3 Body Composition and Human Physical Performance.**

**517-2 Athletic and Physical Education Facilities Design, Construction, and Maintenance.**

**519-3 Physical Education for the Educationally Handicapped Child.**

**520-3 Metabolic Analysis of Human Activity.**

**530-1 to 4 (1, 1, 1, 1) Seminar in Research in Human Performance.**

**551-1 to 4 Internship in Sport Management.**

**590-1 to 4 Readings in Physical Education.**

**592-2 to 8 Research in Physical Education.**

**599-3 to 6 Thesis.**

**600-1 to 32 (1 to 16 per semester) Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Physical Therapist Assistant (Program, Major, Courses)

The physical therapist assistant program, which has been accredited by the American Physical Therapy Association, is designed to prepare the student to work under the direction of a licensed physical therapist to treat disabilities resulting from birth defects, disease, or injury. Following the prescriptions of a phy-

sician, the therapist helps the patient to develop strength, mobility, and coordination, and provides relief from pain.

Students will learn massage, exercise, physical agents, and other therapeutic techniques in actual practice in the University's Clinical Center. They will work with professional therapists in learning such complex procedures as administering manual muscle tests, electrical muscle and nerve tests, and other evaluative measures.

Before graduation the student will serve a twelve-week internship in two separate hospitals away from the university campus.

The program is served by an advisory committee made up of practicing physical therapists, physical therapist assistants, students, and educators who provide expertise to assure a curriculum which will prepare students to meet the physical therapy needs of the public.

The student should expect to spend approximately \$100 for uniforms and insurance.

Increasing numbers of elderly and chronically ill persons and the rapid expansion of health care programs in both urban and rural areas have created an urgent demand for trained physical therapists. Employment opportunities are available in hospitals, rehabilitation centers, and extended care facilities.

Physical therapy provides a unique service and requires a close interpersonal relationship with the patient. The candidate must possess the following qualities to work with people: 1) good mental and physical health, 2) stamina, 3) good coordination and manual dexterity, and 4) spirit of cooperation.

The prospective student should plan to make early application for admission to this program because enrollment is limited by size of faculty and physical facilities.

This associate degree program can be completed in two academic years, plus one summer session, at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience. This program can also be completed in one calendar year if the applicant has successfully completed the appropriate college level courses.

The technical course credits will not necessarily transfer to a professional program.

### **Associate in Applied Science Degree, School of Technical Careers**

#### *Requirements for Major in Physical Therapist Assistant*

GE-A 101, 118 and a physiology course approved by the coordinator .....	11
GE-B 202 .....	3
GE-D 101, 152 .....	6
Allied Health Careers Specialties 105 .....	2
Health Education 334 .....	3
Physiology 300 .....	3
Physical Education 302, 320, and 325 or 326 .....	7-8
Psychology 301, or 303, or 304, or 305 .....	3
Physical Therapist Assistant 100, 113, 202, 203, 204, 205, 207, 208, 209, 213, 214, 321, 322 .....	35
<b>Total .....</b>	<b>73-74</b>

### **Courses**

**100-2 Physical Therapy Orientation.** Students will be able to describe the historical background, professional ethics, and legal aspects of physical therapy practice. They will be able to understand and utilize specialized medical terminology. They will be able to prepare treatment areas and patients for treatment. They will be able to understand quality assurance. They will be able to understand the relationship of physical therapy to total health care. Lecture one hour. Laboratory two hours. Mandatory Pass/Fail.



**113-2 Physical Agents I.** The student will be able to demonstrate procedures used in the safe application of local heat and cold such as hot and cold packs, infra-red, ultraviolet and paraffin bath, and will also be able to demonstrate safe hydrotherapy procedures such as whirlpool and contrast baths. Lecture one hour. Laboratory two hours. Ten weeks.

**202-2 Physical Rehabilitative Techniques.** The student will be able to demonstrate rehabilitative procedures such as bed positioning, range of motion exercises, transfer activities, gait training, chest physical therapy, goniometry, and will understand the concepts of total rehabilitation. Lecture one hour. Laboratory two hours.

**203-2 Pathology.** The student will be able to understand the fundamental basis of disease. Emphasis will be placed on those conditions treated through physical therapy procedures. The student will be able to describe the process of inflammation and repair bone and soft tissue injuries. Lecture two hours. Prerequisite: GE-A 209.

**204-2 Physical Therapist Assistant, Practicum I.** Students will be able to carry out routine physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in massage, hydrotherapy, range of motion exercises, activities of daily living, and the safe application of heat and cold. They will also be able to assist in maintaining records and equipment. Lecture one hour. Laboratory three hours. Prerequisite: 113, 202, 207.

**205-2 Physical Therapy Science.** The student will be able to describe selected medical and surgical conditions from the standpoint of etiology, clinical signs and symptoms, and physical therapy treatment. Lecture two hours. Prerequisite: 100, GE-A 209, Physiology 300.

**207-1 Massage.** The student will be able to demonstrate massage techniques for specific conditions through role playing and supervised application of massage to selected patients, and will understand the scientific principles of massage and be aware of indications and contraindications for massage. Lecture one hour. Laboratory three hours. Six weeks. Prerequisite: concurrent enrollment in 100 and consent of instructor.

**208-3 Therapeutic Exercise I.** Designed to teach basic exercises for individual groups, including breathing, postural exercises, manual muscle testing, and gait analysis. Successful students will learn to select exercises for specific results; ie., increasing strength, coordination, endurance, and range of motion. Lecture two hours. Laboratory three hours. Prerequisite: Physiology 300 with a grade of C or better.

**209-3 Therapeutic Exercise II.** Successful students will be able to administer therapeutic exercise techniques for specific clinical conditions through demonstrations and supervised application of exercise for selected patients. They will understand the scientific principles of therapeutic exercise and acquire skills to effectively and safely utilize exercise equipment. They will learn motor development reflexes. Lecture two hours. Laboratory two hours. Prerequisite: 208 and Physiology 300.

**213-3 Physical Agents II.** The student will be able to demonstrate procedures used in the safe application of deep heat, such as shortwave diathermy and ultrasound, and other modalities including pelvic and cervical traction and electrical muscle stimulation, and understand their physiological effects. The student will be able to describe the indications and contra-indications for each physical agent covered. Lecture two hours. Laboratory three hours. Prerequisite: 113 and GE-A 101.

**214-3 Physical Therapist Assistant, Practicum II.** Successful students will be able to carry out more complex physical therapy assisting procedures with selected patients. They will be able to demonstrate previously learned skills in therapeutic exercise, electrical muscle stimulation, and the safe application of such modalities as ultra sound, diathermy, and ultra violet. They will be able to assist in maintaining records and develop cooperative spirit with other members of the department. Lecture one hour. Laboratory five hours. Prerequisite: C average in 113, 202, 203, 204, 208, 213.

**321-8 (4, 4) Clinical Internship.** The successful student will be able to apply previously learned theories and techniques of patient care through closely supervised practicum experience in two separate physical therapy facilities. (a) First six week internship. (b) Second six week internship. Must be taken in a,b sequence. Prerequisite: completion of all other requirements with a minimum grade average of 2.0.

**322-2 Clinical Seminar.** Students will be able to discuss with the coordinator of the program patient care and problems encountered during internship. They will have the opportunity to evaluate their educational experience at Southern Illinois University at Carbondale and their clinical internship experience. Prerequisite: concurrent enrollment in 321. Mandatory Pass/Fail.

## Physics (Department, Major, Courses)

The undergraduate major in physics leading to the Bachelor of Science degree provides for a mastery of basic principles and methods of classical and modern physics and for flexibility in application through a breadth of coverage. Students considering a major in physics are urged to consult with the undergraduate adviser of the physics department. An applied physics/experimental physics op-

tional curriculum is provided by selecting from the courses marked with an asterisk in the list of courses required for a major in physics.

### Bachelor of Science Degree, College of Science

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	12
Foreign Languages (French, German, or Russian recommended) .....	(4) + 4
Biological Science (Not General Education) .....	6 <sup>3</sup>
Mathematics 111 .....	(3) + 2
<i>Requirements for Major in Physics</i> .....	72-73
Chemistry 115 <sup>2</sup> and 222a or 222a,b .....	7-8
Mathematics 150, 250, 251, 305, and 306 or 406 or 407 .....	17
Physics .....	48
Physics 205a, b, c and 255a, b, c .....	12
Physics 301, 310, 320, 345, 410, 420, 430 .....	20
16 hours from 324*, 328*, 351*, 424*, 425, 428*, 431, 432, 445, 450*, 460a*, 460b*, 470, 470*	
*Applied/experimental option, concentrating on laboratory courses .....	16
<i>Total</i> .....	129-130

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>For students who do not pass a proficiency examination in chemistry.

<sup>3</sup>If courses are selected which are approved General Education substitutes the hours earned will reduce the 45 hour requirement in General Education.

### Bachelor of Science Degree, College of Education

<i>General Education Requirements</i> .....	47 <sup>1</sup>
Must include GE-B 202 and 212 or 301; GE-D 101 and 117 or 119; Mathematics 111 as a substitute for GE-D 107	
<i>Requirements for Major in Physics</i> .....	58-59
Chemistry 115 <sup>2</sup> and 222a or 222a,b .....	7-8
Mathematics 150; 250; 251; 305; and 306 or 406 or 407 .....	17 <sup>3</sup>
Physics 205a,b,c and 255a,b,c .....	12
22 hours of physics courses numbered 300 or above including 310, 320, 324, 430, and either 425 or 431 and any three of the following courses which include laboratory: 328, 345 and 351, 424, 432, 450, 460a, and 470 .....	22
<i>Professional Education Requirements</i> .....	28
See Teacher Education Program, page 83. Curriculum, Instruction and Media 468 is required.	
<i>Total</i> .....	133-134

<sup>1</sup>The General Education requirement may be reduced by taking major requirements which are approved substitutes for General Education courses.

<sup>2</sup>For students who do not pass a proficiency examination in chemistry.

<sup>3</sup>Students wishing to qualify to teach mathematics in the secondary schools should take, in addition, Mathematics 311 or 319 and 319e or 352 and 352e.

### Audio Marketing

Students interested in preparing themselves for positions related to audio-marketing within the high-fidelity industry are encouraged to take the following courses, which will provide skills needed for a career in high-fidelity sales:

Science Courses: GE-A 101, Physics 325, 355

Music Courses: GE-C 100



Business Courses: Accounting 210 or 220; GE-B 211 or Economics 214 or 215; Marketing 304, 401

## Minor

A minor in physics requires 17 hours and must include Physics 203a, b and 253a, b, or 205a, b and 255a, b and either 205c and 255c or 302 and 255c; 324 or 328 and 351 (no calculus prerequisite). Students having completed calculus (through Mathematics 251) may select 345 and those taking differential equations may select from 310, 410, and 320, 420, to meet requirements.

Recommended electives:

Chemistry: 226, 380, and 460 or 462

Engineering: 222, 313, 361

Electrical Engineering: 421, 426

GE-B: 211

Geology: 416, 435, 436

Mathematics: 221, 306, 406, 407, 421, 452, 455, 475, 480, 481, 483

## Courses

**102-1 Everybody's Einstein.** A non-mathematical presentation of Einstein's relativity theories on a popular level.

**203-6 (3, 3) College Physics.** Designed to meet preprofessional requirements and the needs of all students in the sciences, except physics and engineering. (a) Mechanics, heat, and sound. Prerequisite: Mathematics 110b or 111. Elective Pass/Fail. (b) Electricity, magnetism, light, and quantum physics. Three lectures, one quiz session. Prerequisite: 203a.

**205-9 (3, 3, 3) University Physics.** (a) Introduction to mechanics of rigid bodies and fluids; wave motion; heat, kinetic theory, and thermodynamics. Prerequisite: Mathematics 150 or concurrent enrollment. (b) Continuation of 205a. Electricity and magnetism, geometrical optics, diffraction, interference, quantum physics. Three lectures per week. Prerequisite: 205a. (c) Introduction to concepts in modern atomic, molecular, and nuclear physics, particles and waves, solid state, relativity, and quanta. Three lectures per week. Prerequisite: 205 a,b or consent of instructor.

**253-2 (1, 1) College Physics Laboratory.** One two-hour laboratory per week. Prerequisite: completion of or concurrent enrollment in 203a, b respectively; if the corresponding lecture course is dropped, the laboratory course must also be dropped.

**255-3 (1, 1, 1) University Physics Laboratory.** One two-hour laboratory per week. Prerequisite: completion of or concurrent enrollment in 205a, b, c respectively; if the corresponding lecture course is dropped, the laboratory course must also be dropped.

**301-2 Theoretical Methods in Physics.** Introduction to theoretical methods of general usefulness in intermediate and advanced undergraduate physics, with particular emphasis on applications of these methods to selected topics. Required of all physics majors prior to taking 310 or 320. Prerequisite: 203a or 204a or 205a, Mathematics 250 or consent of instructor.

**302-3 Astronomy – Honors.** Current knowledge of the universe and the gathering of that knowledge. Includes properties of the solar system and theories of its origin, the structure and evolution of stars. Supplemented by occasional hours of evening observation. Prerequisite: one of 203a, 204a, 205a, plus Mathematics 111, or consent of instructor.

**310-3 Mechanics I.** Motions of systems of particles and rigid bodies: gravitation, moving coordinate systems. Prerequisite: 301 or Mathematics 305 or concurrent enrollment.

**320-3 Electricity and Magnetism I.** The theory of electric and magnetic fields; electrostatic fields in vacuum and in material media, special methods for the solution of electrostatics problems, energy, and force relations in electrostatic fields; stationary electric fields in conducting media, electric currents, magnetic fields, magnetic properties of matter. Prerequisite: 301 or Mathematics 305 or concurrent enrollment.

**324-3 Analog Electronics for the Scientist.** Coordinated two-hour lecture and two-hour laboratory study in analog electronics. Emphasis is on overall modern electronics and its applications in the experimental research laboratory setting. Topics include DC and AC circuit theory, transducers and measurement techniques, semiconductor active devices, operational amplifiers and feedback, signal recovery and processing techniques, and noise reduction. Prerequisite: 203b or 205b and Mathematics 111.

**325-3 Advanced High-Fidelity.** A study of the more advanced scientific concepts in high fidelity including Quadraphonic sound, FM and AM modulation, Noise Reduction Systems, Equalizers, as well as discussions on the important technical parameters of tuner, tape decks, speakers, microphones, amplifiers, cartridges, turntables, and headphones. Prerequisite: GE-A 101.

**328-2 Light.** Light propagation, reflection, refraction, interference, diffraction, polarization, and optical instruments. Prerequisite: 203 or 204 or 205.

**345-3 Thermodynamics and Statistical Physics.** Thermal behavior of macroscopic matter, the laws of thermodynamics; basis for thermodynamics in statistical mechanics; basic methods and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 301, Mathematics 251.

**351-1 Optics Laboratory.** Advanced experiments in geometrical and physical optics. One three-hour laboratory per week. Prerequisite: 328 or concurrent enrollment.

**355-1 Advanced High-Fidelity Laboratory.** The lab accompanies Physics 325 and allows students to perform all of the electronic measurements necessary to characterize high fidelity components. Measurements will include such specifications as distortion, frequency response, stereo separation, power levels, FM sensitivity, selectivity, etc. Prerequisite: concurrent or previous enrollment in 325.

**410-3 Mechanics II.** Lagrange's equations, mechanics of continuous media, inertia and stress tensors, rotation of rigid bodies, small vibrations, and advanced principles. Prerequisite: 310 or consent of instructor.

**420-3 Electricity and Magnetism II.** Induced electromotive force, quasisteady currents and fields, Maxwell's equations, electromagnetic waves and radiation, with applications. Prerequisite: 320 or consent of instructor.

**424-3 Digital Electronics for the Scientist.** Coordinated two-hour lecture and two-hour laboratory study of digital electronics, microprocessors and minicomputers with emphasis on their application to the experimental research laboratory setting. Topics include Boolean algebra, basic digital techniques, large scale integration devices, analog to/from digital conversion, microprocessors and minicomputers, and data acquisition. Prerequisite: 324 or consent of instructor.

**425-3 Solid State Physics I.** Structure of a crystalline solid; lattice vibrations and thermal properties; electrons in metals; band theory; electrons and holes in semiconductors; opto-electronic phenomena in solids; dielectric and magnetic properties; superconductivity. Prerequisite: 310, 320, 345, and 430 or consent of instructor.

**428-3 Modern Optics.** Advanced course in modern optics covering such topics as interference and interferometers, diffraction, coherence, holography, optics of solids, laser and non-linear optics; recent developments in optical instrumentation for research. Prerequisite: 328 and 420.

**430-3 Quantum Mechanics I.** An introduction to quantum mechanics including its experimental basis and application in atomic physics. Prerequisite: 310 and 320. Elective Pass/Fail.

**431-3 Atomic and Molecular Physics I.** Atomic spectra and structure; molecular spectra and structure; application to lasers. Prerequisite: 205c and 430.

**432-3 Nuclear Physics I.** Basic nuclear properties and structure; radioactivity, nuclear excitation, reactions, nuclear forces; fission and nuclear reactors; controlled nuclear fusion. Prerequisite: 430.

**445-3 Statistical Mechanics I.** An introductory course in the principles and applications of classical and quantum statistical mechanics. Elementary kinetic theory of matter. Prerequisite: 340 and 430 or concurrent enrollment.

**450-1 Modern Physics Laboratory.** Introduces students to experimental research and encourages them to develop and carry out experiments. Prerequisite: 205c, either of 350 or 351, or consent of instructor.

**460-8 (4, 4) Physical and Applied Acoustics.** Coordinated lecture and laboratory study in acoustical phenomena. Topics include vibration analysis, wave mechanics, two and three dimensional propagation and applications in physics, materials science, engineering, architecture, music, and environmental science. Emphasis on laboratory and field techniques with modern computer analysis. Prerequisite: 301 or Mathematics 305 or concurrent enrollment.

**470-1 to 3 Special Projects.** Each student chooses or is assigned a definite investigative project or topic. Prerequisite: 310, 320.

**500-6 (3, 3) Mathematical Methods in Physics.**

**510-4 Classical Mechanics.**

**511-3 Mechanics of Deformable Bodies and Fluids.**

**520-6 (3, 3) Electromagnetic Theory.**

**530-6 (3, 3) Quantum Mechanics II.**

**531-6 (3, 3) Advanced Quantum Mechanics.**

**535-6 (3, 3) Atomic and Molecular Physics II.**

**545-6 (3, 3) Statistical Mechanics II.**

**560-6 (3, 3) Nuclear Physics II.**

**565-6 (3, 3) Solid State Physics II.**

**570-1 to 12 (1 to 4 per semester for a maximum of three semesters) Special Projects in Physics.**

**571-6 (3, 3) X-Ray Diffraction and the Solid State.**

**575-1 to 12 (1 to 4 per topic). Selected Topics in Physics.**

**581-1 to 3 (1, 1, 1) Graduate Seminar.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**



Physiology (Department, Major, Courses)

The Department of Physiology offers training in mammalian physiology, cellular and comparative physiology, pharmacology, biophysics, and human anatomy. The undergraduate major in physiology provides general rather than specialized training in physiology. To become a professional physiologist usually requires the completion of an advanced degree in the field. An undergraduate major in physiology would provide an excellent foundation for those planning a career in teaching or research as well as for those planning a career in a medical field such as medicine, dentistry, veterinary science, nursing, or medical technology. Students considering a major in physiology are urged to consult with the undergraduate adviser of the Department of Physiology.

Bachelor of Arts Degree, College of Science

General Education Requirements . . . . .	45
College of Science Requirements . . . . .	4
Foreign Languages. . . . .	(4) + 4
Requirements for Major in Physiology . . . . .	58
Physiology Courses . . . . .	24
Physiology 410a,b . . . . .	10
Physiology electives . . . . .	14
To be chosen from courses offered in the	
Department of Physiology, except 208, 209, 258, and 259	
Physical Sciences . . . . .	24
Chemistry 222a,b; 380a,b . . . . .	16
Physics 203a,b; 253a,b . . . . .	8
Biological Sciences . . . . .	6
Two from Biology 305, 307, 308, 309	
Mathematics 140 or 141 or 150 <sup>1</sup> . . . . .	4
Electives . . . . .	13
Total . . . . .	120

<sup>1</sup>Mathematics 140 or 141 or 150 will fulfill the College of Science mathematics requirement.

Minor

A minor in physiology requires a minimum of 16 hours of course work, 10 hours of which must be selected from the courses offered in the Department of Physiology, except 208, 209, 258 and 259. The remaining course work may be derived from closely related areas with prior approval of the department.

Junior-Senior Honors Program

Juniors who have shown outstanding ability in biology courses and related subjects in their freshman and sophomore years may apply for acceptance into the honors program. Honors students do independent study in the physiological sciences (Physiology 491) during their junior and senior years.

Courses

- 208-1 Laboratory Experiences in Physiology.** Laboratory course to be taken concurrently with 209. Provides experiences with small animal experimentation and measurements made on the human subject. One two-hour laboratory per week. Prerequisite: concurrent enrollment in 209.
- 209-3 Principles of Physiology.** A comprehensive introductory analysis of the functional ma-

chinery of the living body, with emphasis on human physiology. Three lecture hours per week. Not open to students who have taken 210. Prerequisite: a background in biological science recommended.

**211-3 Principles of Laboratory Animal Use in Teaching and Research.** A basic to intermediate course for physiology and other life science majors and students in related fields. Principles and practices of laboratory animal medicine applicable to the research investigator are covered, including: legal requirements; procurement methods; detailed discussion of over 12 common research animals; breeding techniques; surgical instruments, suture patterns and surgical knots, suture materials, anesthetics, basic surgical techniques, suture patterns and gnotobiology, and zoonoses. Two one-hour lectures and one two-hour laboratory per week.

**258-2 to 8 Work Experience Credit.** Under special circumstances, practical experience in laboratories or other work directly related to physiology can be used as a basis for granting credit in physiology. Credit for past work experience is sought by petition to the chairperson of the department and requires approval of the dean of the College of Science. Credit for on-going work experiences requires approval by the chairperson of the department prior to enrollment.

**259-2 to 8 Occupational Education Credit.** Under special circumstances, advanced training in a paramedical or other field directly related to physiology can be used as a basis for granting credit in physiology. Such credit is sought by petition to the chairperson of the department and requires approval of the dean of the College of Science.

**300-3 Human Anatomy.** Lectures, demonstrations, and observations of the prosected body. Course primarily for students of physical education, with emphasis on musculoskeletal and nervous systems. Three lecture hours per week. Not open to students who have taken 301.

**301-4 Survey of Human Anatomy.** Lectures, demonstrations, and observations of the prosected body, plus experiences in the anatomy laboratory. Course is designed for students in nursing; mortuary science, biological science, and related disciplines. Three lecture hours and one two-hour laboratory per week. Not open to students who have taken 300.

**310-5 Introductory Human Physiology.** Beginning course in human physiology designed for majors in physiology and other biological sciences, and recommended to premedical and other students considering biological sciences and health professions. Three lectures per week, one hour discussion and one two-hour laboratory. Prerequisite: one year of biological science and a reasonable knowledge of chemistry.

**400-6 (3, 3) Concepts in Anatomy.** A detailed survey of human anatomy for preprofessional students with an interest in the biomedical disciplines, including radiographic, cross-sectional, and historical correlates. Three lectures per week. Should be taken in a,b sequence. Prerequisite: senior standing or consent of instructor.

**401-6 (3, 3) Advanced Human Anatomy Laboratory.** Laboratory dissection of the human body. Primarily for students with a major in physiology or other biological sciences. Six hours of laboratory per week. Prerequisite: concurrent enrollment in 400.

**410-10 (5, 5) Mammalian Physiology.** Physical and chemical organization and function in mammals, with emphasis on the human. Physiology of blood and circulation, respiration, digestion, metabolism, excretion, endocrines, sensory organs, nervous system, muscle. Primary course for all students majoring in physiology or related sciences. Three lectures and two two-hour laboratory sessions per week. May be taken in any sequence. Prerequisite: college level chemistry and physics and at least junior standing.

**411-4 (2, 2) Experimental Animal Surgery.** (a) Covers animal care and preparation, anesthesia, etc.; one lecture and one two-hour laboratory per week. (b) Provides training and practice in surgical procedures. Two two-hour laboratories per week. Must be taken in a,b sequence.

**420-4 Principles of Pharmacology.** Absorption, distribution, and metabolism of drugs (pharmacokinetics). Action of drugs on the living organism. Covers pharmacologic action of drugs affecting autonomic nervous system, drugs used in neurological and psychiatric disorders, and drugs affecting the cardiovascular system. Three lectures and one three hour laboratory per week. Prerequisite: organic chemistry, Physiology 210, or concurrent enrollment in 410. Some knowledge of biochemistry is desirable.

**430-4 (2, 2) Cellular Physiology.** The nature and mechanisms of function of the living cell. Chemical and physical analysis of function at the cellular level. Two lectures per week. Prerequisite: organic chemistry.

**433-6 (3, 3) Comparative Physiology.** Variations of physiological processes in animal phyla, and comparison of these with human physiology. (a) Osmotic and ionic regulation; digestion, nutrition, and metabolism; excretion; respiration; defense and resistance. (b) Muscles and movement; circulation; nervous systems and sensory information; coverings and support; endocrine regulation; reproduction. Three lectures per week. Prerequisite: one year of biological science.

**440-6 (3, 3) Biophysics.** (a) Biomathematics, biomechanics and biotransport. (b) Bioelectrics and bio-optics applied to physiological problems. Three lectures per week. Prerequisite: Mathematics 141 or equivalent; one year of college biological science including Physiology 210 or its equivalent; one year of college physics. May be taken in b,a sequence with consent of instructor.

**450-3 Vertebrate Endocrinology.** A survey of the major endocrine control systems of vertebrates. Emphasis will be on those mechanisms which trigger endocrine responses to maintain homeostasis. Prerequisite: 210; concurrent enrollment in 411 or demonstrated equivalency; or consent.



**460-2 Electron Microscopy.** Lecture course designed to introduce the student to the theory and principles of electron microscopy. Two lecture hours per week. Prerequisite: senior standing or permission of instructor.

**461-3 Biomedical Electronics.** Practical experience with modern electronic circuits and devices used for biomedical purposes, with circuit construction and troubleshooting practice. Two lectures and one two-hour laboratory per week. Prerequisite: consent of instructor.

**462-3 Biomedical Instrumentation and Measurements.** (Same as Electrical Engineering 462.) Diagnostic and therapeutic modalities related to engineering. Includes study of electrocardiography, ultrasonography, and chemical instrumentation; radiation therapy, electrosurgery, and prosthetic design. Prerequisite: senior standing in any branch of engineering and at least one course in human physiology or consent of instructor.

**491-3 to 8 Independent Research for Honors.** Supervised readings and laboratory research in physiology directed by a member of the physiology faculty. Undergraduate honors students only. By special arrangement with the instructor in the physiology department with whom the student wishes to work.

**492-1 to 3 Special Problems in Physiology.** Supervised readings and laboratory research in physiology directed by a member of the physiology faculty. Open to undergraduate students only. By special arrangement with the instructor in the physiology department with whom the student wishes to work.

**500-1 to 6 (1 per semester) Advanced Seminar in Physiology.**

**530-3 Advanced Cellular Physiology.**

**531-2 Advanced Cellular Physiology Laboratory.**

**533-4 Advanced Comparative Physiology.**

**540-3 Advanced Biophysics.**

**551-4 Methods in Pharmacology.**

**555-3 Cardiovascular Pharmacology.**

**560-4 (2, 2) Physiological Techniques.**

**570-3 to 48 Advanced Physiological Topics.**

**571-3 Research and/or Problems in Biological Transmission Electron Microscopy.**

**572-2 Physiology of Fertilization.**

**574-3 Neuropharmacology.**

**575-3 Neuroendocrinology.**

**590-1 to 4 Readings or Research in Current Physiological Topics.**

**599-1 to 6 Thesis Research.**

**600-1 to 32 Dissertation Research.**

**601-1 to 12 per semester Continuing Research.**

## Plant and Soil Science (Department, Major, Courses)

The Department of Plant and Soil Science includes crop production, horticulture, and soils. There are many widely varied opportunities for students with an interest in plants or soils. Students may choose a general option within the department and select most of their upper division credits from a wide choice of electives throughout the School of Agriculture and the University. If interests are more specialized, students may elect the science option and specialize in one particular area, or may elect a specialization which will combine a broad background in plants and soils with selected business courses and business related electives. A specialization in environmental studies would familiarize the student with environmental problems relating to plants and soils.

Students selecting the landscape horticulture specialization can prepare for interesting careers in landscaping or gardening in parks, playgrounds, residential or industrial areas, road and street parkway improvement and maintenance, and in other public and private work to make the environment more pleasing and useful.

Opportunities for individual program development within the various options may be realized through work experience, internships, special studies, and seminars; however, no more than 30 hours of such unstructured coursework may be counted toward the degree. Students in all specializations are urged to make use of them to meet the goals and needs of their respective programs.

Students in all specializations must complete the plant and soil science core courses. These courses are 200, 220, 240, and one hour of 381.

There may be extra expenses for field trips, manuals, or supplies in some courses.

### Bachelor of Science Degree, School of Agriculture

	SPECIALIZATIONS		
	General	Science	Business
<i>General Education Requirements</i> .....	47	47	47
Physics 203a or physics substitute <sup>1</sup> .....	—	3	—
Chemistry 140a substituted for GE-A 106-3.....	4	—	4
Chemistry 222a.....	—	4	—
Botany 200 substituted for GE-A 115-3.....	4	4	4
Agribusiness Economics 204 substituted for GE-B 211.....	3	3	3
GE-B 202.....	—	—	3
GE-D 101.....	3	3	3
GE-D 107.....	3	—	3
GE-D 117 or 118 <sup>2</sup> .....	2	2	2
GE-D 153.....	3	3	3
Mathematics 108 <sup>4</sup> .....	—	3	—
<i>Requirements for Major in Plant and Soil Science</i> .....	53	68	64
Courses in two other departments in agriculture.....	6	6	6
Botany 320.....	4	4	4
Chemistry 140b.....	4	—	4
Chemistry 222b, 380a,b.....	—	12	—
Mathematics 109, 141.....	—	7	—
Physics 203b.....	—	3	—
Plant and Soil Science 200, 220, 240, 381-1.....	11	11	11
Other Plant and Soil Science courses <sup>3</sup> ...	17	17	17
Other Agriculture electives.....	11	6	6
Mathematics, physical sciences, or biological sciences.....	—	2	—
Accounting 210, Management 301 or 304, Marketing 304, or Agribusiness Economics 360.....	—	—	9
Business electives and supporting courses.....	—	—	7
<i>Electives</i> .....	20	5	9
<i>Total</i> .....	120	120	120

<sup>1</sup>Physics 205a may be substituted.

<sup>2</sup>GE-D 118 is highly preferred.

<sup>3</sup>Plant and soil science electives must include 15 hours of structured coursework at the 300 or 400-level, with no less than 9 hours at the 400-level.

<sup>4</sup>Mathematics 111 may be substituted.

#### PLANT AND SOIL SCIENCE MAJOR – LANDSCAPE HORTICULTURE SPECIALIZATION

<i>General Education Requirements</i> .....	47
Chemistry 140a substituted for GE-A 106-3.....	4
Botany 200 substituted for GE-A 115-3.....	4
Agribusiness Economics 204 substituted for GE-B 211.....	3
GE-D 101.....	3



GE-D 107 .....	3
GE-D 117 or 118 <sup>1</sup> .....	2
GE-D 153 .....	3
<i>Requirements for Major in Plant and Soil Science with a</i>	
<i>Specialization in Landscape Horticulture</i> .....	63-65
Agricultural Education and Mechanization 371, 374 .....	4
Biology 307 .....	3
Botany 320 and 356 or 357 .....	7-8
Chemistry 140b .....	4
Plant and Soil Science 200, 220, 240, 322, 327, 328a,b, 381-1, 428a,b, 432 or 434 .....	30-31
Agriculture electives .....	12
Zoology 316 .....	3
<i>Electives</i> .....	8-10
<i>Total</i> .....	120

<sup>1</sup>GE-D 118 highly preferred.

PLANT AND SOIL SCIENCE MAJOR – ENVIRONMENTAL STUDIES SPECIALIZATION

<i>General Education Requirement</i> .....	47
Chemistry 222a or chemistry substitute .....	4
Botany 200 substituted for GE-A 115-3 .....	4
GE-A 330 .....	3
Agribusiness Economics 204 substituted for GE-B 211 .....	3
GE-B 212 .....	3
GE-C 221 .....	3
GE-D 101 .....	3
GE-D 118 .....	2
GE-D 153 .....	3
Mathematics 108 substituted for GE-D 107 .....	3
<i>Requirements for Major in Plant and Soil Science with a Specialization</i>	
<i>in Environmental Studies</i> .....	64
Agriculture 333 .....	2
Animal Industries 455 .....	2
Agribusiness Economics 401 .....	3
Plant and Soil Science 200, 220, 240, 381-1, 419, 420, 441, 447, 468 .....	27
Agriculture electives, Plant and Soil Science 328a and 446 highly recommended .....	9
Civil Engineering 314 .....	3
Political Science 325 .....	3
Mathematics 109 <sup>1</sup> and 141 .....	7
Chemistry 222b .....	4
Botany 320 .....	4
<i>Electives</i> .....	9
<i>Total</i> .....	120

<sup>1</sup>Mathematics 111 may be substituted.

Minor

A minor in plant and soil science is also available to those interested in field crop production, horticulture, or soils. A total of 16 hours of credit is required with at least 12 hours taken at the University. One course may be selected from 200, 220, or 240; and at least eight hours from 300 or 400 level structured courses. The

chairperson should be consulted for assistance in selecting this field as a minor.

### Certification

Students may be certified as agronomist, crop scientist (specialist), or soil scientist, (specialist, classifier) by completing a program approved by the American Registry of Certified Professionals in Agronomy, Crops and Soils. Students with any of the above specializations may complete the certification programs, although those with a science specialization will find they can complete the program with few hours beyond the number required for a bachelor's degree. Most of the certification requirements can be completed with proper selection of courses as General Education substitutes and by using elective courses to fulfill certification requirements. Students are encouraged to discuss their interests with a departmental representative to obtain additional information.

	AREA OF CERTIFICATION <sup>6</sup>		
	Agronomist	Crop Scientist	Soil Scientist
<i>General Education Requirements</i> . . . . .	47	47	47
Physics 203a substituted for GE-A 101 <sup>1</sup> . . . . .	3	3	3
Chemistry 222a substituted for GE-A 106 . . . . .	4	4	4
Botany 200 substituted for GE-A 115 . . . . .	4	4	4
Agribusiness Economics 204 substituted for GE-B 211 . . . . .	3	3	3
GE-D 101 . . . . .	3	3	3
GE-D 117 or 118 <sup>2</sup> . . . . .	2	2	2
GE-D 153 . . . . .	3	3	3
Mathematics 108 <sup>4</sup> substitutes for GE-D 107 . . . . .	3	3	3
<i>Requirements for Major in Plant and Soil Science</i> . . . . .	77	83	80
Courses in two other departments in agriculture . . . . .	6 <sup>5</sup>	6	6
Biological science elective . . . . .	—	2	—
Botany 320 . . . . .	4	4	4
Chemistry 222b, 380a,b . . . . .	12	12	12
Computer Science 202 . . . . .	3	3	3
Economics elective . . . . .	3	3	3
Engineering elective . . . . .	—	—	3
Geology 220 . . . . .	—	—	3
Plant and Soil Science 200, 220, 240, and 381-1 . . . . .	11	11	11
Other Plant and Soil Science courses: <sup>3</sup>			
Crop sciences . . . . .	6	15	6
Soil sciences . . . . .	11	11	15
Agronomy electives . . . . .	5	—	4

<sup>1</sup>Physics 205a may be substituted.

<sup>2</sup>GE-D 118 is highly preferred.

<sup>3</sup>Plant and soil science electives must include 15 hours of structured coursework at the 300- or 400-level, with no less than 9 hours at the 400-level.

<sup>4</sup>Mathematics 111 may be substituted.

<sup>5</sup>Agricultural Education and Mechanization 318 required.

<sup>6</sup>Meets requirements for certification by the American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS).



Pest management/plant protection (weed science, plant pathology, entomology).....	6	6	6
Mathematics 109 <sup>4</sup> , 140, and 283 .....	10	10	10
Total .....	124	130	127

Courses

**100-2 Plants for Society.** How plants have affected the development and culture of society. Inter-relationship between plants and people. Importance of plants for beauty, food, fiber, medicine, and drugs. Not applicable to a major or minor in plant and soil science, but may be used as agriculture elective.

**140-2 Soils for Society.** The importance of soil in everyday life. Soil as a medium for plants grown for food, fiber and leisure. The importance of soil in reducing harmful chemicals and wastes and improving our environment. Not applicable to a major or minor in plant and soil science, but may be used as agriculture elective.

**200-3 Principles of Field Crop Production.** Production of important field crops of the world with greatest emphasis on U.S. and midwestern field crops; crop production changes and adjustments, crop distribution over U.S., and crop groups and classifications, special agronomic problems, crop enemies, crop ecology, fertilizer and liming practices, tillage, crop improvement through breeding. Field trip (no cost).

**220-3 General Horticulture.** General principles of plant propagation, vegetable growing, fruit growing, landscape gardening, and floriculture. Seniors cannot enroll without consent of instructor. Prerequisite: Botany 200 or equivalent.

**225-2 Genetics for the Amateur Gardener.** An introduction to the essential principles of genetics and plant hybridization utilizing common garden and house plants.

**228-2 Floral Arrangements.** Theory and practice in the art of flower and plant arrangement for the home, show, and special occasions. History, elements, and principles of design and use of color.

**238-2 Home Gardening.** Vegetable gardening techniques for the home gardener. Both inorganic and organic methods are used together with the latest recommended varieties for the small garden.

**240-4 Soil Science.** Basic and applied chemical, physical, and biological concepts in soils. The origin, classification and distribution of soils and their relationship to humans and plant growth. Prerequisite: Chemistry 140b or equivalent; geology suggested.

**257-1 to 10 Work Experience.** Credit for on-campus work experience in the areas of plant and soil science, or credit through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Credit awarded based on 4 hours of work per week during the semester for each hour of credit. Prerequisite: consent of instructor. Mandatory Pass/Fail.

**300-5 (2, 3) Field Crop Production.** Principles of growth and production of field crops and their utilization. (a) Primarily corn and soybeans. (b) Small grains, primarily wheat and grain sorghum, with laboratory demonstrating principles discussed in both a and b including research projects, and grading and utilization of grain. Laboratory field trips, approximately \$5. Prerequisite: an introductory crops course or consent of instructor.

**305-4 Plant Genetics.** Principles of genetics and evolution of plants, elementary plant breeding, and the interaction between plant breeding and industry. Prerequisite: a course in biology or botany.

**310-3 Morphology of Crop Plants.** Cellular structure, vegetative and reproductive development, and gross morphology of major crop plants. Utilization of crop plant parts. Prerequisite: one course in introductory biology or equivalent.

**322-3 Turfgrass Management.** Principles and methods of establishing and maintaining turfgrass for lawns, recreational areas, and public grounds. Identification of basic plant and soil materials and management of turfgrasses in variable environments. Prerequisite: a biology course.

**325-3 Garden Flowers.** Culture, identification, and use of flowering bulbs, annuals, biennials, and perennials in the home flower garden. Prerequisite: an introductory course in biology or consent of instructor.

**327-3 Landscape Plant Materials.** Identification, usage and adaptability to the landscape of woody (deciduous and evergreen) and ornamental shrubs, trees and vines. Use of plant keys. Prerequisite: an introductory botany course or consent of instructor.

**328-4 (2, 2) Appreciation of Landscape Design.** (a) Introduction to theory and principles of landscape design as applied to the modern home. Property selection and climate control. (b) Laboratory. Practical application in modern methods of property planning including the individual components of the completed landscape plan and selection of plants. Prerequisite: 327 and Agriculture Education and Mechanization 371 and 374 or equivalent.

**338-3 Flower Shop Management.** Requirements for establishing and operating a retail flower shop. Business management, floral design, and marketing. Prerequisite: 228, a course in economics, or consent of instructor.

**359-1 to 6 Intern Program.** Supervised work experience program in either an agricultural



agency of the government or agri-business. Prerequisite: junior standing and approval of department. Mandatory Pass/Fail.

**380-4 (2, 1, 1) Plant and Soil Evaluations.** (a) Grain grading to include crop and weed identification and seed identification and analysis. (b) Comparative evaluation and judging of horticultural crops to include flowers, fruits, vegetables, woody ornamentals. Field trip costing approximately \$25. (c) Soil evaluation to include identification of genetic horizons, their physical characteristics and classification. Field trips (no cost). These courses are not required for participation in SIU judging team activities.

**381-1 to 2 (1, 1) Plant and Soil Science Seminar.** Discussion of special topics and/or problems in the various areas of plant and soil science. Prerequisite: GE-D 153 and junior standing.

**390-1 to 4 Special Studies in Plant and Soil Science.** Assignments involving research and individual problems. Prerequisite: consent of department chairperson.

**391-1 to 4 Honors in Plant and Soil Science.** Independent undergraduate research sufficiently important to three hours per week of productive effort for each credit hour. Prerequisite: junior standing, GPA of 3.0 with a 3.25 in the major, and consent of department chairperson.

**400-2 Trends in Agronomy.** A discussion session format will be employed as a means of acquainting students with recent literature and allowing them to remain current with latest developments in their area of specialty. Prerequisite: senior standing.

**405-3 Plant Breeding.** Principles of plant breeding emphasized together with their application to the practical breeding of agronomic, horticultural, and forest plants. Field trip costs approximately \$10. Prerequisite: 305 or equivalent.

**408-3 World Crop Production Problems.** Ecological and physiological factors influencing production in various areas of the world. Natural limitations on world crop production. Non-agricultural factors influence world crop output. Prerequisite: 200.

**409-3 Crop Physiology and Ecology.** The effects and significance of physiological and ecological parameters on crop yields. Prerequisite: Botany 320 or consent of instructor.

**419-3 Forage Crop Management.** Forage crop production and utilization; forage crop characteristics, breeding, and ecology; grasslands as related to animal production, soil conservation, crop rotation, and land use. Field trip costs approximately \$5.00. Prerequisite: Botany 200 or one course in biology or equivalent.

**420-4 Crop Pest Control.** Study of field pests of forest; orchard, field, and garden crops; pest control principles and methods; control strategy; and consequences of pest control operations. Prerequisite: introductory biology or crop science course and/or consent of department.

**422-3 Turfgrass Science.** Basic concepts of physiology, growth, and nutrition of turfgrasses and their culture. Application of turfgrass science to management of special turf areas such as golf courses, athletic fields, and sod farms; and to the turfgrass industry. Field trips cost approximately \$15. Prerequisite: 240 and 322 or equivalent or consent of instructor.

**423-3 Greenhouse Management.** Principles of greenhouse management controlling environmental factors influencing plant growth; greenhouses and related structures; and greenhouse heating and cooling systems. Field trips costing approximately \$5. Prerequisite: 220 or consent of instructor.

**424-4 Floriculture.** Production, timing, and marketing of the major floricultural crops grown in the commercial greenhouse. Each student will have an assigned project. Field trip costing approximately \$25. Prerequisite: 423 or consent of instructor.

**428-6 (3, 3) Advanced Landscape Design.** Theory and principles of residential landscape design. Practice in drawing residential landscape plans. (a) Emphasis on arrangement of unit areas. (b) Emphasis on details of design and selection of plants. Prerequisite: 328-4 or consent of instructor.

**430-4 Plant Propagation.** Fundamental principles of asexual and sexual propagation of horticultural plants. Actual work with seeds, cuttings, grafts, and other methods of propagation. Field trip costing approximately \$5. Prerequisite: 220.

**432-4 Nursery Management.** Principles and practices involved in the propagation, production, and marketing of ornamental landscape plant materials. Emphasis on plant production with field trips to various production areas costing approximately \$40. Prerequisite: 220 and 327a, or consent of instructor.

**434-3 Woody Plant Maintenance.** Care and management of ornamental shrubs and trees commonly used in the landscape. Topics to include trimming, pruning, fertilization, transplanting, and diagnosis of woody plant problems. Prerequisite: 327 or Forestry 202 or consent of instructor.

**436-4 Fruit Production.** Deciduous tree and small fruit growing, physiology, management practices, marketing. Prerequisite: 220 or consent of instructor.

**437-4 Vegetable Production.** Culture, harvesting, and marketing of vegetables; with morphological and physiological factors as they influence the crops. Field trip costing approximately \$5. Prerequisite: 220 or consent of department.

**441-3 Soil Morphology and Classification.** Development, characteristics, and identification of soils, study of profiles; and interpretation and utilization of soil survey information in land use planning. Field trip costing approximately \$5. Prerequisite: 240 or consent of instructor.

**442-3 Soil Physics.** A study of the physical properties of soils with special emphasis on soil and water relationships, soil productivity, and methods of physical analysis. Prerequisite: 240.



**443-3 Soil Management.** The soil as a substrate for plant growth. Properties of the soil important in supplying the necessary mineral nutrients, water and oxygen and for providing an environment conducive to plant root system elaboration. Soil management techniques that are important in optimizing plant growth. Prerequisite: 240.

**446-3 Soil and Water Conservation.** Covers the principles of hydrologic processes and soil erosion. Consideration will be given to the occurrence of soil erosion as it affects humans, food production, and the environment. The methods and technologies for protecting against and controlling of erosion will also be discussed. Prerequisite: 240 and GE-D 107 or consent of instructor.

**447-3 Fertilizers and Soil Fertility.** Recent trends in fertilizer use and the implications of soil fertility build up to sufficiency and/or toxicity levels; the behavior of fertilizer material in soils and factors important in ultimate plant uptake of the nutrients; the plant-essential elements in soils and ways of assessing their needs and additions; tailoring fertilizer for different uses and management systems; implication of excessive fertilization in our environment. Prerequisite: 240; concurrent enrollment in 448 suggested.

**448-2 Soil Fertility Evaluation.** A laboratory course designed to acquaint one with practical soil testing and plant analysis methods useful in evaluating soil fertility and plant needs. One hour lecture, two hours laboratory. Prerequisite: 240; 447 or concurrent enrollment; or consent of instructor.

**454-4 Microbial Processes in Soils.** A study of microbial numbers, characteristics and biochemical activities of soil microorganisms with emphasis on transformations of organic matter, minerals, and nitrogen in soil. Prerequisite: 240 or Microbiology 301.

**468-3 Weeds – Their Control.** Losses due to weeds, weed identification and distribution, methods of weed dissemination and reproduction, mechanical, biological, and chemical control of weeds. State and Federal legislation pertaining to weed control herbicides. Herbicide commercialization. Field Trips costing approximately \$5. Prerequisite: an introductory biology course.

**470-2 Post Harvest Handling of Horticultural Commodities.** Fundamental principles of post harvest physiology, handling, and evaluation of horticultural commodities will be covered. Specific details will be given on vegetable, fruit, ornamental, and floricultural commodities. Field trip costing approximately \$30. Prerequisite: 220 and Botany 320.

**518-3 Principles of Herbicide Action.**

**520-3 Growth and Development of Plants.**

**524-2 Advanced Plant Genetics.**

**526-4 Cytogenetics.**

**547-2 Soil-Plant Nutrient Relationships.**

**560-5 (3, 2) Field Plot Technique.**

**581-1 to 4 (1, 1, 1, 1) Seminar.**

**582-6 (2, 2, 2) Colloquium in Plant and Soil Science.**

**588-1 to 8 International Graduate Studies.**

**590-1 to 4 Readings.**

**592-1 to 3 Special Problems.**

**593-1 to 4 Individual Research.**

**599-1 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Political Science (Department, Major, Courses)

The study of political science is concerned with predicting, explaining, and evaluating the political behavior, beliefs, laws, and organizational arrangements of people in a variety of settings. A major in political science provides rigorous social science training. A variety of courses afford a student an opportunity to study, in depth, individual and group behavior, political, administrative, and judicial processes, comparative national and subnational governmental systems, intergovernmental relations and conflict resolution, and normative and empirical political theory. The student who is interested in the public sector will find discussions of such topics as voting behavior, American foreign policy, and the decisions and opinions of Supreme Court justices to be challenging experiences.

A major in political science provides excellent training for the public service, scientific polling and political analysis, management training programs, and teaching, particularly at the secondary level. A political science major also provides an excellent foundation for professional graduate training in law, journalism, public administration or public affairs, as well as for graduate work in political science which is essential for a career in higher education. For the non-

vocationally oriented student, political science is an excellent major for anyone with a keen interest in politics and public affairs.

A student planning to major in political science should consult with the academic adviser of the department as early as possible in order to plan an orderly and coherent program. All members of the department are available for consultation on their academic specialties.

Students majoring in political science must take GE-B 212. Political Science 200, 213, 270, 378, and GE-B 250 are background courses for many advanced courses in the department. In fulfilling General Education requirements or in choosing electives, political science majors should select courses from economics, psychology, sociology, anthropology, geography, and history. Mathematical or statistical training is highly recommended because of the emphasis on empirical research and analysis in political science. Such training will also enhance vocational opportunities. Depending on special interest, a student should also consider courses in foreign languages or computer programming. Such courses are particularly important for the student who is planning to enter graduate school.

Qualified students are encouraged to inquire about individualized courses of study such as Political Science 390, 395, and 494. The interested student should contact the academic adviser of the department or a member of the faculty.

At least fifteen of the required thirty-three credit hours for political science must be earned at Southern Illinois University at Carbondale.

**Bachelor of Arts, College of Liberal Arts**

<i>General Education Requirements</i> . . . . .	45
<i>Supplementary College Requirements (See page 94)</i> . . . . .	(4) + 8-14
<i>Requirements for Major in Political Science</i> . . . . .	33

GE-B 212, or equivalent

Additionally, political science courses, including 200 and 300 GE-B courses offered by the department, to total 33 hours. Courses shall be distributed so that a minimum of one course is taken in 5 of the following 6 areas: scope, methods, and political theory; American politics; public law; public administration; comparative politics; and international relations. GE-B 212 does not satisfy an area requirement. A minimum of three courses must be taken at the 400 level.

<i>Electives</i> . . . . .	28-34
<i>Total</i> . . . . .	120

**Bachelor of Science Degree, College of Education**

A major in political science for education requires 33 credit hours of work in the department. This work must be distributed among the subfields of the discipline in the same manner as the 33-hour requirement described above for the Bachelor of Arts degree.

Every student enrolled in this program should seek regular advisement in the Department of Political Science to ensure that department requirements will be fulfilled.

Students obtaining a Bachelor of Science degree in the College of Education must satisfy all requirements of that college. See Teacher Education Program, page 83. Professional education and other certification requirements may be found in the section of this catalog titled Curriculum, Instruction, and Media. All students enrolled in a teacher education program are required to take a special methods course. Since there is no methods course in political science, Curriculum, Instruction, and Media 469 is a required course for all students in this program. The course should be completed before student teaching. A student enrolled in the teacher education program is required to have a 2.50 grade point average in politi-



cal science in order to be recommended for student teaching by the department.

Minor

A minor in political science consists of 15 hours to be approved by the department adviser.<sup>1</sup>

<sup>1</sup>Students completing a minor in political science for purposes of obtaining teacher certification in the State of Illinois must complete a minimum of 18 semester hours in the minor area.

Courses

The numbers preceding the following course titles have been designed to group courses by subject matter as well as level. A summary explaining the numbering system follows:

COURSE	LAST TWO DIGITS OF COURSE NUMBER
Scope, Methods, and Political Theory	00-09
American Politics	10-29
Public Law	30-39
Public Administration	40-49
Comparative Politics	50-69
International Relations	70-89
Miscellaneous	90-99

Courses

- 200-3 Introduction to the Discipline of Political Science: Scope.** Examination of the philosophy, methodology, theories, approaches and relevant generalizations of the study of politics and of the scope and subfields of political science. Not open to seniors without instructor's consent.
- 207-3 Contemporary Political Ideologies.** A survey of recent political ideologies: Nationalism, Socialism, Communism, Liberal Democracy, Conservatism, Christian Socialism, Fascism, Contemporary Liberation Movements.
- 213-3 State and Local Government.** Structure, functions, and decision-making processes of subnational governments in the United States. Prerequisite: GE-B 212.
- 214-3 Illinois Government.** The politics, structure, and function of state and local governments in Illinois with stress upon the historical development of the political culture, current issues and events in the light of the historical background, and the interrelationship of politics, structure, and policy. Prerequisite: 213 or sophomore standing.
- 220-3 Problems in American Public Policy.** Study and analysis of selected public policies and programs. Examination of major issues will have a problem orientation and their selection will vary. The following topics will usually be included: political economy, defense, welfare and health, urban affairs, and the relationship between the media, energy, education and politics. Prerequisite: GE-B 212 recommended.
- 270-3 Introduction to International Relations.** A study of world politics. The cause of international conflict and conditions of peace.
- 300-3 Introduction to the Discipline of Political Science: Methods.** An examination of the research methods and data analysis techniques used by political scientists in their analysis of political questions and problems. Prerequisite: None, 200 recommended.
- 303-3 Introduction to Political Theory.** Normative and testable theories in political science are introduced and interrelated. Guidelines for applying those theories to empirical and ethical problems are discussed. Prerequisite: 200 recommended.
- 316-3 Political Socialization.** (Same as Sociology 316.) An inquiry into interdisciplinary empirical theory and research on political learning relevant to (1) who (2) learns what (3) from whom (4) under what circumstances (5) with what effects. Prerequisite: 200 or GE-B 212 or instructor's consent.
- 317-3 Public Opinion and Electoral Behavior.** The nature and function of public opinion as it is related to electoral behavior. Additional sociological and psychological bases of voting behavior will be studied. Prerequisite: None; 200 recommended.
- 318-3 Political Campaigns and Elections.** (Same as Speech Communication 358.) Analysis of modern political campaigns and the role they play in a democracy. Emphasis will be on recent developments in the planning and execution of campaigns by mass media and communication specialists and the role of the political parties and the public opinion polls in this process. Prerequisite: GE-B 212.
- 319-3 Political Parties.** Nature, structure, and functions of political parties, with particular attention to the roles and activities of political parties in the United States. Attention also given to voting behavior and elections. Prerequisite: GE-B 212.

**321-3 The Legislative Process.** A comparative analysis of legislatures and legislative behavior. Emphasis is on the United States Congress. Prerequisite: GE-B 212.

**322-3 American Chief Executive.** The origin and background of the presidency and the governorship, qualifications, nomination and election, succession and removal, the organization of the executive branch, and the powers and functions of the president and governor. Prerequisite: GE-B 212.

**324-3 Politics and Public Policy.** The public policy-making process in the United States evaluated and a wide range of public policy programs analyzed. Prerequisite: GE-B 212.

**325-3 Politics and Environmental Policy.** Prompted by the conservation lobbies, United States and state legislatures moved to preserve the biosphere and to create a healthier human environment. The course will cover the traditional common law remedies to protect the citizens and their property from the hazards of pollution and new broader constitutional and/or statutory right to a clean, healthy, and pleasant environment. Prerequisite: None; GE-A/GE-B/GE-C 221 or Political Science 340 recommended.

**326-3 Politics of Social Welfare.** The Social Security Act and other legislation of major significance for the welfare and maintenance of the family, the handicapped, children, and other special groups. Their relationship to the legal structure of federal, state, county, township, and municipal welfare facilities, and institutions with indications of economic and social consequences.

**328-3 Field Research in Public Policy.** Students study public policy of their choice, individually or in teams, using field research techniques such as interviewing, direct observation, and inspection of public records. The policy studied is then evaluated in light of student-developed concepts of the public interest. Prerequisite: GE-B 212.

**330-3 Introduction to the Legal Process.** Designed to provide a basic background in the United States legal process for students who want only an overview of the process or who plan to take an extensive number of additional courses in the judicial area. The course will survey the history of common law, legal reasoning, basic terminology, conventional legal research, the legal profession, and provide an introduction to civil and criminal processes. Prerequisite: GE-B 212.

**332-3 Introduction to Civil Liberties and Civil Rights.** Course focuses on civil rights (e.g. voting, housing, employment, education) in terms of congressional statutes, the judicial rulings which led up to them, the administrative development and judicial interpretation of the statutes. Prerequisite: GE-B 212 recommended.

**334-3 Criminal Justice in Society and Court Management.** Designed to provide the student with an in-depth look at the organization and management of federal, state, and local criminal courts. Focuses on the criminal process and the rights of defendants as they are processed by the system. Prerequisite: GE-B 212 recommended.

**340-3 Introduction to Public Administration.** An introduction to the study of public bureaucracy. Theoretical, political, and practical issues of organization, staffing, financing, and other matters are surveyed. United States administration and organizational behavior are stressed. Prerequisite: GE-B 212.

**353-3 Comparative Communist Systems.** General introduction to the political systems of communist states with special emphasis on Eastern Europe. Attention given to the role of ideology, the character and role of the party, and major decision making structures and processes.

**354-3 Political Violence.** Comparison of several forms of political violence: war, revolution, terrorism, assassination, urban guerrilla warfare. The national and individual correlates of violence will be studied.

**366-3 Introduction to Latin American Government and Politics.** A general introduction to Latin American government as the institutionalized political expression of Latin American civilization and culture. Does not require a reading knowledge of Spanish or Portuguese.

**371-3 International Political Economy.** Political dynamics of international trade, finance, investment, multinational corporations, energy, development, world wealth distribution, technology transfers. Politics of economic relations between East and West, rich and poor. Assumes that the political system shapes the economic system, that political concerns often shape economic policy, and that international economic relations are political relations. Prerequisite: none; 270 or economics course recommended.

**373-3 International and Transnational Organizations.** The growth and role of international organizations, with special attention to the political effects of military, economic and ecological interdependence. The United Nations, regional organizations, and non-governmental organizations. The effects of these organizations on international peace and justice. Prerequisite: none; 270 recommended.

**378-3 Introduction to American Foreign Policy.** An investigation of the means by which American foreign policy is formulated and executed and an analysis of the most significant challenges confronting America abroad.

**383-3 International Relations of Communist States.** History and analysis of the foreign policies principally of the Soviet Union and China, with some attention to Eastern Europe, North Korea, Vietnam, and Cuba. Prerequisite: 353 or GE-B 250 or consent of instructor.

**390-1 to 6 Readings in Political Science.** In-depth, introductory and advanced readings in areas not currently covered in other political science courses. Student must choose a faculty member to direct reading and must obtain consent prior to registration. Fifteen hundred pages of read-



ing per credit hour recommended. Name of faculty member must be filed with the undergraduate adviser of the department at registration. Prerequisite: consent of instructor prior to registration. **395-1 to 12 Internship in Public Affairs.** Supervised field work in the office of a governmental agency, political party, interest group, legal agency, or other public affairs-oriented organization. A faculty-supervised paper is required in which the student relates the academic and internship experiences. Students must choose a faculty member to direct internship and obtain consent prior to registration. Name of faculty member must be filed with undergraduate adviser of the department at registration. Political Science 395 is open only to students who are confirmed Political Science majors or minors. Students must have taken at least two courses in the department with a minimum grade point average of 2.5 in these courses. No more than six hours may be counted toward a departmental major. A written description identifying the specific organization, the projected tasks, and responsibilities of the intern should be prepared prior to meeting with the faculty sponsor.

**403-4 Philosophy of Politics.** (See Philosophy 441.)

**404-3 History of Political Theory.** Shall survey different theorists and perspectives which have contributed significantly to the development of the ongoing tradition of political theory up to modern times. Prerequisite: 303 or consent of instructor.

**405-3 Democratic Theory.** An examination of various species and aspects of democratic thought, including the liberal tradition and its impact upon the United States. Prerequisite: GE-B 212 or consent of instructor.

**406-3 Socialist Thought.** An examination of socialist thought regarding social structure, economic institutions, and political power. Prerequisite: senior or graduate standing or consent of instructor.

**408-3 Contemporary Political Theory.** Shall explore the theorists and perspectives which have contributed to contemporary views of the political world. Prerequisite: 303 or consent of instructor.

**413-3 Contemporary Intergovernmental Relations.** An examination of relationships among national, state, and local governments in the American federal system, with emphasis on recent literature and contemporary issues. Special attention is given to fiscal relations, and specific intergovernmental programs in areas such as housing and environmental quality are examined. Prerequisite: GE-B 212.

**414-3 Political Systems of the American States.** The state level of government viewed with emphasis upon recent developments and current research. Prerequisite: 213.

**415-3 Urban Politics.** An examination of the environment, institutions, processes, and functions of government in an urban society with particular emphasis on current problems of social control and the provision of services in the cities of the U.S. Prerequisite: 213.

**416-3 Senior Seminar in Politics.** Seminar for advanced undergraduate students to examine in depth a wide variety of topics; to be taught by different instructors. Available for use as the honors seminar. Graduate students not admitted. Prerequisite: 200 recommended.

**417-3 Political Psychology.** An examination of various psychological theories as they relate to the development and change of political attitudes, leadership behavior, and mass political participation. Prerequisite: 200 recommended.

**418-3 Political Communications.** (See Speech Communication 451.)

**419-4 Political Sociology.** (See Sociology 475.)

**429-3 Women and the American Political Process.** (Same as Women's Studies 445.) Focuses on the role of women in the American political system. Examines the political behavior of women as voters and as political elites. Also analyzes policies regarding women's issues, such as comparable worth, affirmative action, and reproductive rights.

**433-6 (3, 3) Constitutional Law.** (a) This, the initial course in a two-course sequence is concerned with the basic structure and power relationships in the American constitutional system. Topics include judicial review, judicial restraint, separation of powers, the federal system, national powers, state powers, the contract clause, and substantive due process. Prerequisite: GE-B 212. Political Science 330 recommended. (b) This, the second course in the constitutional law sequence concentrates on those provisions of the U.S. Constitution which protect individual rights and liberties against government encroachment. Prerequisite: GE-B 212.

**435-3 Judicial Process and Behavior.** An examination of the process by which judges in both trial and appellate courts at federal and state levels are selected and of the ways in which they make decisions. Attention to the structure of the courts. Study of the communication and impact of judicial decisions. The course will provide some insight into the methods used to study judicial behavior.

**436-3 Administrative Law.** The procedural law of public agencies, particularly the regulatory commissions but also executive branch agencies exercising regulatory functions. The exercise of discretion and its control through internal mechanisms and judicial review. Prerequisite: an ability to read court cases; 340 also preferred.

**437-3 Jurisprudence (Theories of Law).** Major schools in legal thinking. Positive law and natural law. Idea of justice and concept of natural rights.

**441-3 Administration of Bureaucratic Organizations.** A study of the elements of bureaucratic organization and of problems and procedures in administration of complex public agencies. Emphasis is placed on the personnel aspects of public bureaucracy, including the history and struc-



ture of civil service systems, conditions of public service employment, and issues in leadership and supervision. Prerequisite: 340 or consent of instructor.

**443-3 Public Financial Administration.** An examination of governmental revenues and expenditures, with emphasis on state and local governments. Special attention is given to patterns of taxation and expenditure, intergovernmental fiscal relations, municipal debt, and administrative decisionmaking. Prerequisite: 213 recommended.

**444-3 Policy Analysis.** An examination of basic concepts in the policy sciences, approaches to policy analysis, applications to selected areas of policy, and instruments of policy development.

**445-4 Administration of Environmental Quality and Natural Resources.** (Same as Geography 426.) An examination of institutional arrangement and administrative practices in the protection and use of land, water, air, and mineral resources. The course includes analysis of responsibility and decision-making at all levels of government (federal, state, and local) as well as corporate, interest group, and individual responses to public programs. Particular attention will be given to administration of federal environmental quality legislation including the National Environmental Policy Act, the Clean Air Act, the Water Pollution Control Act, and the Surface Mining Reclamation Act.

**447-4 to 5 (3, 1 or 2) Urban Planning.** (See Geography 470a, b.)

**452-3 The Politics of Developing Areas.** A comparative study of the principal features of traditional, transitional, and modern political systems, patterns of political socialization and culture as well as leadership recruitment and client-patron relationships in traditional and transitional political systems, the nature of political participation in predominately agrarian societies, and the strategies utilized to rule and to legitimize the rule of predominately post-colonial societies. Prerequisite: none. GE-B 250 recommended.

**455-3 Comparative Public Administration.** Administrative attitudes, behaviors, and institutions are compared on a topical basis in governments of Britain, Europe, the United States, Japan, and selected socialist, developing, and ancient states.

**457-3 Great Britain and the Commonwealth.** The nature of the Commonwealth Association and the politics of Great Britain and the "Old Commonwealth" countries: Australia, Canada, New Zealand. Prerequisite: none. GE-B 250 recommended.

**458-3 Contemporary Western Europe.** Comparative study of contemporary political systems and policy issues of Western Europe. Emphasis on selected countries and common problems facing governments. Topics covered include the European community, security, economic, energy, and social policies, and study of various governing processes.

**459-3 Government and Politics of the Soviet Union.** Dynamics of Soviet government and economy. Prerequisite: none. GE-B 250 recommended.

**461-3 Governments and Politics of Southeast Asia.** Politics and governments of Burma, Thailand, Malaysia, Vietnam, Cambodia, Laos, Singapore, Indonesia, and the Philippines. Prerequisite: none. GE-B 250 recommended.

**462-3 Governments and Politics of Vietnam.** Origins of revolution. The war for national reunification. Impact of American involvement. Contemporary problems of consolidation and development under communist rule. Implications for regional security. Prerequisite: GE-B 250 recommended.

**463-3 Government and Politics of China.** Internal political, economic, and social development of China. Prerequisite: none. GE-B 250 recommended.

**464-3 Governments and Politics in the Middle East.** Internal and international politics of the Islamic states of the Middle East and North Africa and Israel. Prerequisite: none. GE-B 250 recommended.

**465-3 Governments and Politics of Sub-Saharan Africa.** (Same as Black American Studies 465.) An examination of the impact of western colonial rule on the societies and politics of Africa, the methods by which these colonial areas became sovereign states in the post-World War II era, the role of domestic political institutions, African political thought and behavior, and the development of foreign policies regarding relations with other African states, continental and international organizations, and non-African states. Prerequisite: none. GE-B 250 recommended.

**466-4 Governments and Politics of Latin America.** An in-depth analysis of specific problem areas in Latin American political processes as well as comparative study of selected Latin American nation-states. Prerequisite: none. 366 recommended.

**468-3 Comparative Civil-Military Politics.** A comparative study of the growth of the relationship of the armed forces with the civilian sector of the body politic, the selection, training, and professionalization of the officer corps, the control of the armed forces by the executive and legislature, the growth of strategic doctrine, insurgency and counter-insurgency warfare, and the analysis of the role of the armed forces as a governing group in a large number of non-western states. Prerequisite: none. GE-B 250 recommended.

**475-6 (3, 3) International Law.** (a) Rules and practices governing the nations in their relations in peace and war. Prerequisite: none. 270 recommended. (b) Investigation of special problems in international law. Prerequisite: 475a.

**477-3 The Making of American Foreign Policy.** An advanced course dealing with the formulation and administration of American foreign policy. Prerequisite: none. 378 recommended.

**480-3 International Politics.** Definition and analysis of the concepts of spheres of hegemony, alliances, regionalism, integration, interdependence, and an evaluation of their application to con-



temporary international politics. The course will stress the need for the continuing evaluation of the vague role of national power and influence within the framework of a changing world environment.

**485-3 International Relations of the Far East.** The political and strategic problems and the interplay of the foreign policies of the major powers in this area. Prerequisite: none. 270 recommended or History 380 recommended.

**488-3 International Relations of the Western Hemisphere.** Emphasis on the international behavior of Latin American nation-states and/or regions especially related to policy trends and historical and contemporary objectives of the U.S. Prerequisite: none. 270 recommended.

**494-1 to 6 Honors Research.** Directed research for senior government honors students. Not for graduate students. Prerequisite: consent of instructor and chairperson. Student must have at least a *B* average in political science.

**500-3 Pro-Seminar in Research Methods.**

**501-3 to 9 (3 per topic) Research Methods.**

**502-3 to 6 Topical Seminar in Research Methods.**

**503-3 Data Preparation and Management.**

**504-3 Pro-Seminar in Political Theory.**

**505-3 to 6 (3, 3) Topical Seminar in Normative Theory.**

**508-3 to 6 (3, 3) Topical Seminar in Empirical Theory.**

**510-3 Pro-Seminar in American Politics.**

**511-3 to 6 (3, 3) Topical Seminar in American Politics.**

**514-3 Seminar in American State Politics.**

**515-3 Seminar in Urban Politics.**

**516-3 to 6 (3, 3) Seminar in Political Behavior.**

**518-3 Seminar in Political Parties.**

**521-3 Seminar in the Legislative Process.**

**530-3 Pro-Seminar in Public Law.**

**538-3 Seminar in the Judicial Process.**

**540-3 Environment of Public Administration.**

**541-3 Seminar in Applied Problems of Public Administration.**

**542-3 Public Budgeting and Fiscal Management.**

**543-3 Public Personnel Management.**

**544-3 Program Analysis and Evaluation.**

**545-3 Organization Theory and Behavior.**

**547-6 (3, 3) Topical Seminar in Public Administration.**

**550-3 Pro-Seminar in Public Administration.**

**560-3 Pro-Seminar in Comparative Politics.**

**568-3 Seminar in Comparative Analysis.**

**569-3 to 6 (3, 3) Topical Seminar in Comparative Politics.**

**570-3 Pro-Seminar in International Relations.**

**573-3 Seminar in International Organization.**

**575-3 Seminar in International Law.**

**577-3 to 6 (3, 3) Topical Seminar in Foreign Policy.**

**580-3 to 6 (3, 3) Topical Seminar in International Relations.**

**590-1 to 6 Readings.**

**591-1 to 6 Individual Research.**

**593-1 Preprofessional Seminar in Political Science.**

**594-1 to 6 Research Report in Public Affairs.**

**595-1 to 6 Internship to Public Affairs.**

**599-1 to 6 Thesis.**

**600-1 to 36 (1 to 16 per semester) Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Professional Education Experiences

### Student Teaching

Student teaching, along with Education 317, constitutes a full professional commitment on the part of the student and is a full professional semester of experience in the field carrying 14 hours of credit. Additional course work may not be taken during the semester of student teaching.

The student teacher must follow the same daily schedule as the cooperating teacher with whom the student is placed. This means that the student teacher remains in the school for the entire day, as well as participating in whatever extracurricular activities might be the responsibility of the cooperating teacher.

Students majoring in elementary education will be assigned to work with a cooperating teacher in one of the elementary grades, one through six, in an affiliated school. Students majoring in early childhood education will be assigned to work with a cooperating teacher in a kindergarten or primary grade, one through three, in an affiliated school.

The student who majors in a secondary school subject field which has an approved program in the teacher education program will be assigned to work with a cooperating teacher in a secondary school, grades seven through twelve, whose teaching assignment is consistent with the student's teaching major.

Special education majors will be assigned to work with a cooperating teacher in the appropriate special area: mental retardation, behavioral disorders, or learning disabilities. Special education majors will be assigned at both the elementary and secondary levels in order to meet certification requirements. Similar grade level assignments will be made for art, music, and physical education majors. Students majoring in communication disorders and sciences will be assigned to a cooperating teacher who is a speech clinician in an affiliated school.

Students wishing to enroll in the professional semester during the fall or spring semester of the academic year must file an application with the Office of Teacher Education, Wham Building, Room 135, at least one semester in advance of the semester during which they wish an assignment. The professional semester program during the summer session is restricted to those individuals who hold either a provisional teaching certificate or a teaching certificate in a field other than the one for which they are seeking certification. Participation in this program is also dependent upon the availability of suitable placements in the summer school programs of participating public schools.

Applications for both regular academic year and special summer participation are available in the Office of Teacher Education, Wham Building, room 135.

The student must register for the professional semester following normal registration procedures. Registration will include the following courses: Education 400, 4 hours, Education 401, 8 hours, and Education 317, 2 hours. Students will register for the sections of these courses designated for their majors. Registration during the summer session is by restricted class card for Education 402, 5-8 hours.

#### PLACEMENT OF STUDENT TEACHERS

Student teaching under the supervision of Southern Illinois University faculty is conducted in professional education centers in affiliated schools in the southern Illinois area as well as in specific locations throughout the state. A current listing of specific schools to which student teachers may be assigned is available in the Office of Teacher Education.

In so far as numerical limits will permit, students will be assigned to the location of their choice. However, if the limits have been met, students are advised that they may be assigned to any of the centers which can suitably accommodate them.

Students are advised to make no binding housing commitments during the professional semester until they have received verification of their student teaching assignments. Such housing commitments will not be considered when students are assigned.

#### PROFESSIONAL SEMESTER – (STUDENT TEACHING) PREREQUISITES

1. Students must have achieved formal acceptance into the teacher education program and must present their records of acceptance when applying for the professional semester.
2. The student is responsible for having all transcripts of credit earned at colleges or universities other than Southern Illinois University on file with the coordinator in the Office of Teacher Education. These must be on file by the tenth day of the semester for which the student is applying.



3. Prior to the professional semester, the intern must have completed a minimum of 20 semester hours in the subject area to be taught. The course work involved must meet the approval of the department chairperson of that major department. (Course work and performance required may be obtained from the department concerned.) An up-to-date list of approved majors in the teacher education program may be found in the booklet, *The Teacher Education Program*, or requested from the Office of Teacher Education.
4. The student must have completed a minimum of 100 clock hours of pre-student teaching field experiences.
5. The student must have completed 75 semester hours of credit with a minimum cumulative average of 2.5 before beginning work in student teaching.
6. Each of those courses which are a part of the professional education sequence prior to the professional semester must have been completed with a grade of C or better. (See Teacher Education Program, page 83.)
7. The student must have completed GE-D 101 and GE-D 117, 118, or 119 or GE-D 120, and one additional English course (GE-C, GE-D, or English department) with a grade of C or better in each of the last two courses completed.
8. The student must have completed the special methods class required for the major prior to the professional semester.
9. Every student teacher must have a health clearance from the University Student Health Program. The health clearance consists of a tuberculin test. If it is not convenient to come to the health service in Carbondale, students may have a tuberculin test by their own medical doctors. A record of the health clearance must be on file in the Office of Teacher Education by the tenth day of the semester immediately preceding the student's professional semester.
10. The student must have established at least one semester of residence at Southern Illinois University, earning a minimum of 12 semester hours of credit, prior to any professional semester assignment.

**Field Experiences Other Than the Professional Semester**

Other field experiences for students in the teacher education program are provided in Education 310 and Education 316. Applications for these courses are available in the Office of Teacher Education.

**Psychology** (Department, Major, Courses)

The undergraduate major in psychology is primarily aimed at providing broad general education rather than specialized professional training in psychology. To become a professional psychologist usually requires the completion of two to four or more years of postgraduate study.

Students planning to complete a major in psychology may formally declare their intention with the supervisor of the undergraduate curriculum in the Department of Psychology, Room 229, Life Science II. The declaration should be made as early as possible.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> . . . . .	45
<i>Supplementary College Requirements</i> (See page 94.) . . . . .	(4) + 8-14
<i>Requirements for Major in Psychology</i> . . . . .	37-40
GE-B 202 . . . . .	(3)
Mathematics 108, 116, or	
139 (choose one) . . . . .	(3) + 0-2

Psychology 211, 212 .....	8
Psychology electives: (10 courses) Six distributive elective courses must be chosen from Groups A, B, and C, with a minimum of one from each group. The remaining four nondistributed electives may be chosen from Groups A-D. At least three of the ten electives must be chosen from the 400-level courses in Groups A-C.	
Group A: 301, 303, 304, 305, 307, 333, 349, 431, 432, 440, 451, 461, 463	
Group B: 302, 309, 310, 314, 371, 407, 409, 414, 415, 419, 445	
Group C: 203, 320, 322, 323, 324, 340, 411, 413, 421, 441, 465	
Group D: 222, 389, 391, 392, 394, 489, 499	
Refer to course descriptions for limitations .....	29-30
<i>Electives</i> .....	21-30
<i>Total</i> .....	120

## Minor

A minor in psychology consists of 15 hours (a minimum of five courses) of psychology courses acceptable to the department. Students taking a minor in psychology for the purpose of obtaining teacher certification in the State of Illinois must complete a minimum of 20 hours of acceptable psychology courses.

## Senior Honors Program

A small number of students is selected each year for the honors program. Selection criteria are promising academic performance (3.0 overall grade point average and 3.25 psychology grade point average minimum), expressed interest, recommendation by departmental adviser, and capacity of program to take new students. Emphasis is on small seminar and individual research work by the student.

## Courses

**203-2 Careers in Psychology.** A survey of fields of psychology from the perspective of available career options. Activities, required skills, rewards, and external constraints that characterize different career paths are discussed in relation to students' abilities and interests. Required of psychology majors, but open to any interested student. Should be taken as soon as possible following the introductory psychology course. Prerequisite: GE-B 202.

**211-4 Research Methods in Psychology.** An introduction to the application of scientific methods to the study of behavior. Experimental design and methodology and correlational procedures are considered. Considerations of data analysis and interpretations are integrated with the treatment of design and methodology. Lecture and laboratory. Prerequisite: GE-B 202.

**212-4 Field Research Methods in Psychology.** An introduction to field and other quasiexperimental methods appropriate for use in settings in which the researcher can exercise minimal control and manipulation. Included are designs and analytical methods for exploring cause-effect relationships in naturalistic settings. Lecture and laboratory. Prerequisite: 211 or consent of instructor.

**222-3 Effects of Recreational Drugs on Mind and Body.** Describes the physiological and psychological effects of substances used as recreational drugs for their psychoactive effects. Drugs discussed will include alcohol, amphetamines, cocaine and other stimulants, the barbiturates, methaqualone, the psychedelics, marijuana, tranquilizers, and the opiates. The purpose of the course is to provide the student with the facts concerning the effects of these drugs and the potential for their abuse and physiological and psychological dependence on them.

**301-3 Child Psychology.** The biological and psychological development of the child from birth through puberty, and relevant research methods and results. Prerequisite: GE-B 202.

**302-3 Psychobiology.** A survey of the role of biological processes in the behavior of humans and other species. Topics include structure and function of the nervous system, behavioral endocrinology, psychopharmacology, sensorimotor functions, sleep and waking, motivation and emotion, reinforcement, psychopathology, and learning and memory.

**303-3 Adolescent Psychology.** Examines the physical and psychological development of the adolescent, and the relevance of childhood development to adolescent problems. Prerequisite: GE-B 202.

**304-3 Adult Development and Behavior.** Introduction to theories of adult psychology and the physical, cognitive, social, and personality developments of adulthood. Prerequisite: GE-B 202.



**305-3 Psychology of Personality.** The inferred patterns underlying an individual's unique reactions to the environment. Investigates the motivation, development, and methods of changing these patterns, and how personality processes are studied. Prerequisite: GE-B 202.

**307-3 Social Psychology.** Surveys contemporary issues such as love and friendship, shyness and loneliness, sexual attitudes and behavior, management of impressions made on others, attitude change and persuasion, leadership, group processes, aggression, and helping behavior. Prerequisite: GE-B 202.

**309-3 Psychology of Learning.** Principles and laws of learning as derived from the classical and instrumental learning literature – acquisition, extinction, punishment, persistence, generalization, discrimination, motivation, drives, and incentives. Prerequisite: 211.

**310-3 Cognitive Psychology.** A survey of theory and research on attention, memory, language behavior, and problem solving. The principal orientation will be the information processing approach to the study of behavior. Prerequisite: GE-B 202.

**311-3 Experimental Psychology: Learning.** Investigates the processes governing behavioral change covered in 309. Experimental studies of conditioning, memory, and forgetting will be emphasized. Laboratory work will include the design and conduct of experiments with humans and/or animals. Prerequisite: 309.

**314-3 Experimental Physiological Psychology.** A survey through readings and laboratory exercises, of selected topics in physiological psychology. The biological bases of sexual behavior, motivation, and memory are emphasized. Prerequisite: Psychology 211 and 302.

**316-3 Experimental Psychology: Social.** A laboratory and lecture course designed to familiarize the student with basic research methodology in experimental social psychology. Prerequisite: 211, 307.

**320-3 Industrial and Organizational Psychology.** Introduction to industrial and organizational psychology. Emphasis is on psychological methods and psychological factors in the analysis and design of jobs and the work environment, and on the training, motivation, and evaluation of performance in the work setting. Prerequisite: GE-B 202.

**322-3 Personnel Psychology.** Examines the methods of psychology used in the selection, placement, and evaluation of employees. Government regulations requiring equal opportunity, psychological measurement concepts, and employee performance evaluation in the work environment are covered. Prerequisite: GE-B 202.

**323-3 Psychology of Employee Relations.** Applied human relations at work focusing on interpersonal and small-group behavior. Covers effective communication, employee morale and motivating others, behavior modification, leadership and group dynamics, human relations and the law, and stress and coping. Prerequisite: GE-B 202.

**324-3 Environmental Psychology.** An examination of human behavior in its sociophysical context designed for students of psychology and the experimental and design fields. Topics include models of behavior-environment relationships; effects of such environmental stressors as noise and crowding; personal space and territoriality; controlling environmental use and abuse; and characteristics of such familiar environments as home, school, workplace, and city. Prerequisite: 307 or consent of instructor.

**333-3 Psychology of Women.** (Same as Women's Studies 341.) An examination of empirical evidence on the biological, psychological, and social functioning of women, describing women's roles, the genetic versus social determinants of women's behavior, and the implications for women's potential. Prerequisite: GE-B 202 or consent of instructor.

**340-3 Introduction to Clinical and Counseling Psychology.** Provides an in-depth understanding of the nature of two major specialties in the field of psychology: clinical and counseling psychology. Students will examine the historical origins of the two areas, study their major theoretical definitions, compare and contrast the areas, and sample empirical and practitioner activities unique to them. Prerequisite: GE-B 202.

**349-3 Psychology of the Small Group.** Provides a psychological perspective of small group processes and functions. Focuses on psychological theories of group development, group dynamics, and individual behavior and process in small groups. Students will be expected to perform in a variety of roles, such as group member, leader, observer, and analyst. Prerequisite: 307 or consent of instructor.

**371-3 Problem Solving and Decision Making.** Indicates how problem solving and decision making can be characterized and evaluated and how they might be modified or improved. Research and theory in related areas of psychology are reviewed with emphasis on the role of thinking, problem solving, expert judgment, and decision making in man-machine systems. Prerequisite: GE-B 202.

**389-1 to 9 Seminar: Selected Topics.** Varied content. Offered as need exists and as faculty interests and time permit. May be repeated as topics vary. Prerequisite: consent of instructor.

**391-1 to 9 Individual Project.** Individual study, research or experience under the supervision of a member of the Department of Psychology faculty. A maximum of three hours of 391 or 392 may count toward the major or minor. Prerequisite: consent of instructor. Mandatory Pass/Fail.

**392-1 to 9 Individual Project.** Individual study, research or experience under the supervision of a member of the Department of Psychology faculty. For use in those cases where the faculty member deems a graded course to be appropriate. A maximum of three hours of 391 or 392 may count toward the major or minor. Prerequisite: consent of instructor.



**394-1 to 9 Undergraduate Practicum in the College Teaching of Psychology.** Supervised practicum in the college teaching of psychology for selected senior psychology majors. (A maximum of three hours may count toward the major.) Prerequisite: senior psychology major and permission of instructor.

**407-3 Theoretical Issues in Learning.** An introduction to the major theoretical issues in learning and their importance. A brief review of the history of such problems will be followed by a summary of the current research concerning these issues. Traditional figures in learning theory will be considered within the context of their positions on specific questions. Prerequisite: 309 or equivalent.

**409-3 History and Systems of Psychology.** A review of the conceptual and empirical antecedents of modern psychology. Prerequisite: senior status.

**411-3 Principles of Training.** An in-depth coverage of practical problems concerned with training to which the principles of learning derived from pure laboratory investigations can be applied. Prerequisite: 309.

**413-3 Individual Differences.** Reviews the reliable and theoretically significant individual and group differences that have been revealed by research in the behavioral sciences. Examines differences in general intelligence, specific verbal and spatial abilities, stylistic and personality characteristics, as well as such group differences as sex, race, and socioeconomic status. Prerequisite: 305.

**414-3 Biology of Behavior Disorders.** An examination of theory and research pertaining to the physiological basis of therapies for a variety of psychological problems such as affective disorders, schizophrenia, alcohol and drug abuse, organic brain dysfunction, and aging. Prerequisite: 302.

**415-4 Psychopharmacology.** A survey of the effects of drugs on the normal and abnormal behavior of humans and animals. A primary focus is upon understanding drug influences on behavior in relation to actions on the nervous and endocrine systems. Prerequisite: 302 and GE-B 202.

**419-3 Behavior and Heredity.** Provides an overview of the experimental and quantitative methods used in studying behavioral differences associated with genetic variables. Elementary aspects of genetics will be included in the course, which will examine several aspects of both human and nonhuman behavior. Prerequisite: 211 or consent of instructor. Zoology 214, Biology 305, or equivalent recommended.

**421-3 Psychological Tests and Measurements.** Introduction to test theory and test development. Detailed coverage of selected tests from such areas as intelligence, aptitude, and personality. Prerequisite: six hours of psychology.

**431-3 Psychopathology.** Classification, description, etiology, and treatment of the disorders of personality organization and behavioral integration. Observations in a state mental hospital setting. Prerequisite: 305 or consent of instructor.

**432-3 Psychopathology of Childhood.** An extensive review and systematic evaluation of theories and research pertaining to the behavior disorders of childhood. Emphasis will be upon empirical data and the implications of these data for the classification and treatment of these disorders. Prerequisite: 301, and 211 or Guidance and Educational Psychology 422.

**440-3 Theories of Personality.** A review and evaluation of major personality theories and their supporting evidence. Prerequisite: 305 or consent of instructor.

**441-3 Helping Skills in Clinical and Counseling Psychology.** Provides systematic training in helping skills for students considering clinical or counseling psychology as a career. Students learn to identify and demonstrate such individual skills as encouragement, paraphrasing, and reflection of feeling, and will use them in practice situations. Students will also learn to apply various approaches to psychotherapy and counseling using hypothetical case studies. The course is complementary to 340. Prerequisite: 340 or consent of instructor.

**445-4 Introduction to Psycholinguistics.** (See Linguistics 445.)

**451-3 Advanced Child Psychology.** An assessment of concepts, methods, and research techniques within selected topic areas of developmental psychology. Prerequisite: 211 and 301, or consent of instructor.

**461-3 Advanced Social Psychology.** Critical examination of contemporary theories and research in social psychology. Practice in application of scientific findings to real-life problems of individuals and groups. Issues treated in depth are chosen for relevance to student's personal needs and career interests. Not for psychology graduate students. Prerequisite: 307.

**463-3 Attitudes and Persuasion.** An examination of theory and research regarding the formation of attitudes, the modification of attitudes, and the techniques for measuring attitudes. Prerequisite: 307.

**465-3 Need Assessment Techniques for Mental Health Planning.** Surveys methodological techniques for assessing the need for mental health services including developing a resource inventory, use of census and other social indicator data, rates under treatments, community and consumer surveys, hearing and site visits. Attention is also paid to method of presenting results of need assessments to lay boards. Prerequisite: senior standing in psychology major, or graduate status, or consent of instructor.

**489-1 to 12 Seminar: Selected Topics.** Varied content. Offered as need exists and as faculty interests and time permit. Prerequisite: consent of instructor.

**499-6 (3, 3) Senior Honors in Psychology.** Intensive study in selective areas for students quali-



fied for honors work in psychology. A research paper or equivalent will be required. Not for graduate credit. Prerequisite: consent of instructor.

**510-3 Learning Processes.**

**511-3 Human Learning and Memory.**

**512-4 Sensory Processes.**

**513-3 Human Psychophysiology.**

**514-4 Neurobiological Bases of Behavior.**

**515-3 Theory and Research in Cognitive Psychology.**

**520-3 Applications of the Psychology of Learning and Memory.**

**522-8 (4, 4) Experimental Design and Analysis.**

**523-3 Research Methods in Clinical Psychology.**

**524-3 Multivariate Methods in Psychology.**

**525-3 Mental Test Theory.**

**526-3 Research in Counseling Psychology.**

**527-3 Theory and Methods of Scaling.**

**528-3 Decision Analysis: Techniques for Aiding Decisions.**

**530-4 (2, 2) Systems of Personality and Psychotherapy.**

**531-3 to 6 Community and Institutional Field Placement.**

**532-2 Experimental Approaches to Personality.**

**533-2 Experimental Approaches to Psychopathology.**

**534-3 Principles of Behavior Therapy.**

**535-3 Psychopathology.**

**536-4 Fundamentals of Counseling.**

**538-3 Theory and Practice of Group Facilitation.**

**539-3 Experimental Approaches to Psychotherapy.**

**540-3 Psychological Assessment.**

**542-3 Principles and Problems in Personality Assessment.**

**547-3 Appraisal in Counseling.**

**548-3 Vocational Psychology and Career Development.**

**549-3 Behavioral Assessment.**

**551-3 Advanced Developmental Psychology I.**

**552-3 Advanced Developmental Psychology II.**

**554-3 Developmental Theories.**

**555-3 Language and Cognition.**

**556-2 Psychological Treatment of the Child.**

**557-2 Family Psychotherapy.**

**558-3 Personality and Social Development of Adults.**

**564-3 Program Evaluation: Experimental and Quasi-Experimental Approaches.**

**569-1 to 3 Applied Research Consultants.**

**571-6 (2, 2, 2) Proseminar in Applied Experimental Psychology.**

**576-3 Human Engineering.**

**585-1 to 18 Advanced Seminar.**

**590-1 to 12 Readings in Psychology.**

**593-1 to 24 Research in Psychology.**

**594-1 to 16 Practicum in Psychology.**

**595-1 to 12 Internship.**

**596-3 Behavior Therapy Practicum.**

**597-1 to 15 Preprofessional Training.**

**598-3 Ethical and Professional Problems in Psychology.**

**599-1 to 6 Thesis.**

**600-1 to 24 Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Public Visual Communications (Courses)

### Courses

**599-3 to 6 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Radio-Television (Department, Major, Courses)

The Department of Radio-Television prepares students for positions in broadcasting and telecommunications by combining practical and theoretical courses in broadcasting with a broad liberal arts background.

The core courses, Radio-Television 300m and 300p, must each be completed with a grade of *C* or better and the typing, English, and language requirements described below must be met before students will be formally accepted as majors in the department. Students who meet these requirements must also complete Radio-Television 305, 308, 340, and 393 with a grade of *C* or better.

Each student enrolled in the radio-television program must complete by the end of the sophomore year or, if a transfer student, by the end of the first semester of enrollment at Southern Illinois University:

1. GE-D 101 and GE-D 117 or 119 with a grade of *B* and, if student receives less than a *B* in either GE-D 101 or GE-D 117 or 119, English 290 with a grade of *C*;
2. A departmentally administered typing test at a minimum speed of 30 words per minute, or attain a grade of *B* or better in Secretarial and Office Specialties 100.
3. Radio-Television 300m and 300p with a grade of *C* or better before enrolling in any other radio-television course. Students must have completed twenty-six semester hours of credit before taking Radio-Television 300m and 300p. These courses may not be repeated more than once.

Transfer students must complete a minimum of 19 hours in radio-television courses at the University to earn a degree.

### **Bachelor of Arts Degree, College of Communications and Fine Arts**

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Radio-Television</i> .....	43-46
Radio-Television 300m, 300p, 305, 308, 340, 393 with a grade of <i>C</i> or better are required. Must include at least one 400-level radio- television course. Radio-Television electives to bring total in the department to 35-38 .....	35-38
Language Requirement .....	8
A foreign language or computer programming must be selected to meet this requirement.	
<i>Minor in a Related Area</i> .....	15
All 15 hours must be in a single department beyond General Education courses. Students should check with departmental advisers for a list of recommended minors.	
<i>Electives</i> .....	14-17
<i>Total</i> .....	120

### **Courses**

**200-3 Understanding Radio and Television.** Review of responsibilities of television viewers and radio listeners, critical viewing and listening of radio and television programs. Analysis of techniques and content of programs. Lecture, discussion, critical review. Not for majors in radio-television. Credit will not count toward the major. Not open to students with credit in 300M or 300P.

**300M-3 Radio-Television Writing Performance Production.** Introduction to the functions, theories, materials and techniques of writing, performing, and production for radio and television. Students write, perform, and produce in radio and television studio laboratories. Extra fee for books and supplies \$15. Note: Radio-Television 300M and 300P are both prerequisites for all other courses. Students must attain a grade of *C* in these courses before taking other courses in the department. Prerequisite: sophomore standing.

**300P-3 History and Foundations of Radio-Television.** Basic communications theory as applied through the history, economics, government regulation of the American system of broadcasting, and in broadcasting programming and audience analysis. Prerequisite: sophomore standing.

**305-2 Audience Research and Ratings Analysis.** The interrelationships of programs and audiences. Methods of audience and program research. Ratings analysis, station surveys. Survey of relevant research in radio-television. Prerequisite: *C* in 300M and 300P.

**308-3 Radio-Television Policies, Laws, and Regulations.** Development of American radio and television policies from their constitutional base through federal law, regulatory agencies, and the



judicial system. Rights and responsibilities of radio and television organizations and of the public. Required for majors. Prerequisite: *C* in 300M and 300P.

**310-3 Radio-Television News Writing.** Selecting, writing, rewriting, and editing news material for presentation on radio and television information programs. Laboratory hours required. Prerequisite: *C* in 300M and 300P.

**311-3 Radio News.** The basic techniques of writing, rewriting, and editing news from local and wire service sources, plus reporting and editing by means of audio tape. Students must have daily access to an audio tape recorder and are encouraged to obtain their own cassette recorder. Laboratory hours required. Prerequisite: *C* in 300M and 300P, 310 or consent of instructor.

**325-3 Survey of Cable Communications.** History and projections of CATV industry growth, patterns of regulation and use. Relation of cable communication to other media, and to society. Extensive readings and discussion of literature. Prerequisite: *C* in 300M and P.

**335-3 Cable Television Programming and Management.** Presents theoretical approaches to programming decisions by local cable systems and cable programming services. Examines management issues affecting cable television on local and national levels. Prerequisite: *C* in 300M and 300P and 325.

**340-3 Television Criticism.** History and analysis of television genres. Analysis and evaluation of technique, content, and aesthetic effect of television messages. Extensive reading in critical literature, written assignments. Required for majors. Prerequisite: *C* in 300M and 300P.

**351-3 Broadcast Programming.** Discussion and analysis of radio and television programming formats, strategies, and scheduling. Prerequisite: *C* in 300M and 300P, 305 or consent of instructor.

**357-3 Broadcast and Cable Promotion.** Theory and management of campaigns promoting audience and sales growth by broadcasters, cable and pay-cable services, and program distributors; including design, implementation, and evaluation of campaigns and materials. Prerequisite: *C* in 300M and 300P, 305, or consent of instructor.

**360-4 Radio-Television Performance.** The development of disciplines controlling vocal and visual mechanics and interpretative performances for announcers, newscasters, interviewers, and narrators of various radio and television situations. Laboratory hours required. Prerequisite: *B* or better in 300M, 310, or 383 or consent of instructor; Communication Disorders and Sciences 104, or Theatre 203.

**363-3 Producing for Radio.** Planning and producing for the special requirements of the medium. Study of differing formats; production of short forms in laboratory exercises. Laboratory hours required. Prerequisite: 383 or consent of instructor.

**365-3 Producing for Television.** Planning and producing for the special requirements of the medium. Research, planning, and budgeting for individual and series productions. Laboratory exercises. Final projects carry over to 369. Laboratory hours required. Prerequisite: *C* in 300M and 300P, 383 or consent of instructor.

**369-3 Directing for Television.** Applications of communications theory and unique characteristics of the medium in directing televised productions. Laboratory hours required. Prerequisite: 383 and 365 with a grade of *B* or better or consent of instructor.

**370-3 Television News.** Techniques in writing, reporting, shooting, and editing utilizing small format ENG equipment. Students purchase a minimum of two half-inch videotape cassettes. Laboratory hours required. Prerequisite: 311 or consent of instructor.

**377-3 Radio and Television Sales and Sales Management.** A marketing approach to station and system sales. Use of ratings, RAB, TVB, and station promotion material. Includes selling methods and techniques and sales management techniques (systems approach, inventory control, pricing). Prerequisite: 305 or consent of instructor.

**383-3 Writing for Radio-Television.** Experience in writing radio and television formats, and announcements – commercial, public service, and promotional. Develops critical awareness and analytical attitude toward broadcast writing, and stresses imagination and creative writing skills. Frequent written assignments in and out of class. Prerequisite: *C* in 300M and P.

**384-3 (1, 1, 1) Radio-Television Practicum.** Practical experience in broadcast operations on the campus. Instructor makes determination on student duties, based on needs of the Broadcast Service and the desires of the student. A minimum of four hours per week. Students obtain application form from academic adviser. Prerequisite: 14 hours in radio-television and consent of instructor. Mandatory Pass/Fail.

**390-4 Radio and Television Management Principles.** Objectives, procedures, policies, and costs in radio and television station development and operation. Prerequisite: 351 and 377 or consent of instructor.

**391-2 Independent Study.** Area of study to be determined by student in consultation with radio-television faculty. No more than two students may work on the same project. Prerequisite: 14 hours in radio-television and consent of instructor.

**393-3 Radio, Television, and Society.** The interrelation of radio and television with social patterns and economic and political systems. Major theories of broadcasting. Effects on these media on society. Required for major and should be taken during student's last semester. Prerequisite: *C* in 300 M and 300P, 308 and 340; completion of 86 hours or consent of instructor.

**395-4 Internship Program.** News production, performance or management sales work experience with a non-university professional organization. The student will be provided an educational experience beyond that available at the University. No possibility of retroactive credit for previous

work experience. Prerequisite: junior status, at least 14 hours in radio-television, grade point average of 3.0 or better in major, consent of instructor, and approval of undergraduate curriculum committee.

**430-2 News and Public Affairs Programming.** Examination of history and scope of news and public affairs programming. Effects of public affairs on programs and audiences. Responsibility of radio and television stations in news and public affairs and community relations. Issues in news and public affairs including ethics. Prerequisite: senior standing.

**453-2 Educational and Public Broadcasting.** The history and regulatory structure of educational and public broadcasting in the United States today, with special emphasis on organizations regulated under the Public Broadcasting Act of 1967. Methods of funding public stations, programming, and careers in educational and public broadcasting considered. Prerequisite: C in 300M and 300P, 308, and senior standing.

**467-3 Radio-Television in International and Agricultural Development.** An examination of broadcasting theory related to rural audiences in the United States and abroad. History of farm broadcasting in the United States and abroad. Communications in development is explored. Research on effects on rural audiences. Open to non-majors with consent of instructor. Prerequisite: senior standing and C in 300M and 300P.

**470-3 Television Documentary Field Production.** Basic principles of television documentary field production, both technical and creative. Camera operation, lighting, sound recording, writing, producing, directing, and editing of video documentaries. Evaluation of documentary technique, form and content as it relates to video. Class will utilize 3/4" and 1" cameras, recorders, and editing systems. Prerequisite: 300, 365, 383.

**481-3 Non-Broadcast Television.** An examination of the special requirements of business, industrial, and medical uses of television. Management, budgeting, planning, and evaluating productions. Exploration of cable television, satellites and other technologies used in non-broadcast situations. Prerequisite: senior standing and 325, 365, or consent of instructor.

**483-3 Advanced Radio-Television Writing.** Exercises in writing broadcast manuscripts including documentary, drama, and children's programming. Prerequisite: senior standing and 340, 383, or consent of instructor.

**489-2 to 6 Radio Television Workshop.** Advanced work in various areas of radio-television and interrelated disciplines. Prerequisite: C grade in 300M, 300P, and consent of instructor.

**491-3 Independent Study.** Area of study to be determined by student in consultation with graduate faculty. No more than two students may work on same project. Students must complete an application form which is available from the departmental adviser. Prerequisite: senior standing and consent of instructor.

**500-3 Introduction to Telecommunications.**

**510-3 Telecommunications Programming.**

**530-3 International Telecommunications.**

**532-3 Telecommunications Research.**

**570-3 Aesthetics of Telecommunications.**

**571-3 Telecommunications Policy.**

**573-3 Telecommunications Management.**

**580-3 Telecommunications Technology.**

**589-3 Telecommunications and Society.**

**591-3 Individual Study in Telecommunications.**

**595-3 Advanced Seminar: Telecommunications.**

**599-1 to 6 Thesis.**

**601-1 to 12 Continuing Research.**

## Radiologic Technology (Program, Major)

(SEE ALLIED HEALTH CAREERS SPECIALTIES)

Radiography is an allied health specialty concerned with the production of x-ray films which enable the physician to diagnose disease processes occurring in the human body. The course of study involves mastering the ability to control radiation production and the ability to position the body properly in order to obtain radiographs of the required anatomical structure.

The curriculum is designed to prepare students to become registered radiologic technologists. Completion of the program provides graduates with the educational requirements necessary to take the national certification examination administered by the American Registry of Radiologic Technologists.

To be accepted into the radiologic technology degree program the student must have completed the requirements for the allied health careers specialties pro-



gram. These advanced radiologic technology courses combine classroom and clinical education, which upon completion allows the graduate to become registry eligible and to receive an Associate in Applied Science degree in radiologic technology.

The courses can be completed in two summer sessions and two regular semesters. The summer sessions and the regular semester sessions will utilize both classroom and clinical education learning experiences, along with elective courses.

Associate in Applied Science Degree, School of Technical Careers

<i>Requirements for Major in Radiologic Technology</i>	
Completion of Allied Health Careers Specialties degree program . . . . .	65
Radiologic Technology Advanced Courses (Allied Health Careers	
Specialties designated) . . . . .	30
Electives . . . . .	6
Total . . . . .	101

Courses

(SEE ALLIED HEALTH CAREERS SPECIALTIES)

Recreation (Department, Major, Courses)

The Department of Recreation prepares the student for positions in the management of leisure services. The department builds its curriculum on a broad General Education foundation, offers professional and skills courses within the Department of Recreation, and draws from many related departments of the University for competencies and skills in the preparation of leaders for the recreation profession. The curriculum emphasizes the practical as well as the theoretical aspects of recreation by offering supervised field experience, and internships in various recreational settings throughout Illinois and the nation.

Students admitted to the Department of Recreation must meet the College of Education requirements and follow their procedures for acceptance. In order to be admitted to practicum courses, students must have a grade point average of 2.25 and the consent of the instructor. Students who do not meet the College of Education requirements must be screened and approved by the department undergraduate faculty.

Students majoring in recreation are required to complete 45 hours of General Education, 35 hours of professional core courses, 40 hours of professional courses in at least one area of specialization, and work closely with the department advisers in selecting electives for their chosen area of specialization. A total of 75 hours beyond General Education is required.

The Department of Recreation offers courses leading to specialization in therapeutic recreation and program services. A careful selection of recommended electives can be used to build competencies in recreation program services administration, outdoor recreation/education, and commercial/industrial recreation.

Students majoring in recreation should start early in their college careers developing skills and competencies in music, dance, arts and crafts, literature, sports and games, nature, drama, and other leisure and cultural areas. The American Red Cross first aid certificate and workshop certificates in recreation sponsored by the state and national recreation and park associations are encouraged for each student. Students focusing on a therapeutic orientation should attempt to acquire either academic or practical experience related to physiological, psycho-

logical and sociological functioning and the concomitant effect of disability. As soon as possible recreation majors will decide on one of the two specializations and elect courses for their areas of specialization. All undergraduate recreation majors will be advised by educational advisement until they have completed the General Education requirements. Recreation advisers are available to students to explain job opportunities and to outline required and elective courses in their chosen specialization.

### **Bachelor of Science Degree, College of Education**

<i>General Education Requirements</i> .....	45
<i>Requirements for Major in Recreation</i> .....	75
English 290 .....	3
Recreation 300, 301, 302, 303, 305, 367, 380-4, 490-12 .....	32
One of the specializations listed below .....	40
<i>Total</i> .....	120

#### PROGRAM SERVICES SPECIALIZATION

Recreation 365, 375, 425, 445, 465 .....	15
Accounting 210 .....	3
Vocational Education Studies 403 or Curriculum, Instruction and Media 483a .....	3
Six hours selected from Psychology 301, 303, 304, 305, 307, 320, 323, 333 .....	6
Electives .....	13
<i>Total</i> .....	40

#### THERAPEUTIC RECREATION SPECIALIZATION

Recreation 460, 461, 462, 304 .....	12
Six hours selected from Recreation 440a, 440b, 440c, 440d, 440e .....	6
Psychology 305 and 431 or 432 .....	6
Physiology 209 and 300 or 301 .....	7-8
Electives (in accordance with certification requirements) .....	8-9
<i>Total</i> .....	40

### **Minor**

Students wishing to earn a minor in recreation must receive written approval from the Department of Recreation. Eighteen hours of course work is required including Recreation 300, 302, 303, and 365, plus six hours chosen from any recreation courses.

### **Courses**

**300-3 Introduction to Leisure Services.** An introduction to the professional field of recreation. A study of the historical, philosophical, sociological, psychological, and economic development of leisure and recreation. Insight into the fundamental concepts, values, and functions of leisure and recreation as an individual emotional experience as well as a necessary part of community life.

**301-3 Leadership in Recreation.** An examination of leadership theories and styles appropriate for activity leaders in recreation. Emphasis will be placed on leadership process and methodology as applicable to leisure service settings.

**302-3 Program Design and Group Dynamics.** A study of essential elements and basic principles involved with the organization and administration of various types of recreation programs and services. Emphasis on leadership processes and methodology. Prerequisite: 301.

**303-3 Recreation For Special Groups.** Problems and characteristics of special groups in society such as teenagers, aged, emotionally disturbed, mentally retarded, physically handicapped, prisoners, and delinquents. Emphasis on leadership processes, methodology, and program materials. Prerequisite: 300 or consent of department.

**304-3 Principles and Practices of Therapeutic Recreation.** Study of the existing practices and principles utilized in therapeutic recreation; professionalism; legislation; team approaches;



activity analysis; supervision functions; community resources; special recreation programs. Prerequisite: 300, 302, 303.

**305-1 Pre-Practicum.** An introduction to the responsibilities and opportunities of field experience within the field of recreation. The course includes field experience identification and selection, resume preparation, letters of application, interview procedures, professional skills, and development.

**320-3 Nature in Recreation.** Acquaints the student with opportunities for the interpretation of the nature phenomenon. The avocational as well as the vocational aspect of nature will be stressed. Required field trip cost not to exceed \$20. Prerequisite: 300, 302, 303 or consent of department.

**330-3 Outdoor Education.** Philosophy and principles underlying the programs and methods in modern outdoor education and school camp programs with emphasis on curriculum enrichment through our natural resources. Expenses for required field trip not to exceed \$20. Prerequisite: 300, 302, 303 or consent of department.

**331-3 Outdoor Living Skills.** Development of techniques for teaching outdoor living skills necessary in a wide variety of recreation programs. The student will be presented with a sample of specific skills including cooking, use of hand tools, fire safety, and others. Methods for teaching various age groups such skills will be discussed. A laboratory charge of approximately \$25 will be required. Prerequisite: 300, 302, 303 or consent of department.

**335-3 Expedition Leadership.** The skills and techniques needed to plan, organize and conduct expeditions such as overnight hikes, canoe trips, backpacking, field trips, and other types of expeditions. Expenses for required field trips not to exceed \$50. Prerequisite: consent of instructor.

**365-3 Administration of Leisure Services.** Administrative procedures in park and recreation departments – organization, finance, personnel, facilities, program, public relations, and other areas of administration. Prerequisite: 302.

**366-3 Workshop in Administrative Issues in Recreation.** Designed to examine in a workshop current administrative issues in recreation such as practices and trends in budget and finance, legal aspects, grant writing, personnel practices and policies, and others. Prerequisite: 365.

**367-3 Research and Evaluation in Recreation.** An introduction to methodological approaches to the scientific study of phenomena inherent to recreation and leisure. The course includes basic research and evaluation designs, research and evaluation report writing, analysis of current leisure research, and use of computers in leisure research and evaluation. Prerequisite: 300, 302, 303.

**370-3 Camp Management.** Principles and procedures of selection and supervision of personnel, program planning, food preparation, health and safety, camp maintenance, evaluation, camp counseling, and other responsibilities of camp administration. Prerequisite: 300, 302, 303 or consent of department.

**375-3 Commercial Recreation.** Problems of commercial recreation related to the profit motive and the challenges and possibilities for public service. Opportunities are examined in such areas as civic centers, student unions, spas and resorts, marinas, ice and roller rinks, sports complexes, and other commercial enterprises. Prerequisite: 300, 302, 303 or consent of department.

**377-3 Overview of Campus Recreation.** Focuses on the administration, organization, planning, implementation, and evaluation of programs and facilities in the campus recreation field. Specific topics addressed include historical and philosophical aspects, administrative practices, competitive and non-competitive programming, future trends and issues, budgeting, public relations, professional associations, and examination of individual characteristics of a variety of campus recreation programs conducted nationwide.

**380-1 to 4 Field Work in Recreation.** Supervised leadership experiences in a public or private recreation setting. It is recommended that a student sign up for two hours per semester. Graduates must complete field experience in at least two areas of specialization. A maximum of six hours of credit may be earned. Prerequisite: 300, 302, 303 or consent of department. Mandatory Pass/Fail.

**385-1 to 2 Readings in Recreation.** Selected readings in professional publications for the purpose of becoming acquainted with the types of research current in community, park, special populations, outdoor recreation, outdoor education, and related fields. For recreation majors only. Prerequisite: 15 hours in recreation.

**386-1 to 2 Problems in Recreation.** Designed to enable students to effectively request funds, request personnel, initiate new programs, or support recreation leisure services. Prerequisite: 15 hours in recreation.

**395-3 Site Maintenance and Operation.** All phases and principles of development, maintenance, and construction of areas and facilities used in a recreation setting. Stress is put on selection and supervision of maintenance personnel. There is a maximum cost of \$5 for course materials in lieu of textbook. Prerequisite: 300, 302, 303 or consent of department.

**401-3 Fundamentals of Environmental Education.** (Same as Agriculture 401.)

**423-3 Environmental Interpretation.** (Same as Agriculture and Forestry 423.)

**425-3 Planning and Design of Recreational Sites.** An examination of master plans for outdoor areas used in school and recreation programs. Principles of masterplanning and practical experience with the master plan will be correlated. Prerequisite: senior or graduate standing.

**440-15 (3, 3, 3, 3, 3) Recreation Activities for Special Populations.** Students will be made aware of problems and characteristics of special population groups. Emphasis is upon the role of therapeutic recreation with these groups in institutional and community settings: (a) Recreation for the mentally ill and emotionally disturbed. (b) Recreation for the mentally retarded. (c) Recrea-

tion for the aged. (d) Recreation for the socially deviate. (e) Recreation for the physically disabled. Prerequisite: 300, 302, 303 or consent of department.

**445-3 Outdoor Recreation Management.** Philosophy and principles underlying the growth and development of outdoor recreation management. Outdoor recreation is examined in terms of historical values, long range planning, site design, visitor needs, and environment impact. A laboratory cost of up to \$14 may be required. Prerequisite: 300, 302, 303 or consent of department.

**460-3 Therapeutic Recreation Management.** Organization and administration of therapeutic recreation programs in hospitals, nursing homes, schools for the retarded, detention centers, prisons, and other institutions. Emphasis on programs for special populations in the community setting. Prerequisite: 300, 302, 303 or consent of department.

**461-3 Program Design and Evaluation for Therapeutic Recreation.** To equip the student with skills necessary to systematically design and evaluate programs. Philosophy and nature of systems, system analysis, program implementation and program evaluation. Prerequisites: 300, 302, 303, one section of 440, or consent of department.

**462-3 Facilitation and Leisure Counseling Techniques.** Study of concepts of leisure counseling as applied to special populations; leisure education models: facilitative techniques including gestalt awareness, transactional analysis, reality therapy, behavior modification, non-verbal communication, values clarification, assertive training, rational emotive therapy, and relaxation therapy. Prerequisite: 303, one section of 440.

**465-3 Advanced Administrative Techniques.** Designed to examine current administrative topics in recreation such as practices and trends in budget and finance, legal aspects, grant writing, personnel practices and policies, and others. Prerequisite: 365.

**475-1 to 24 (1 to 4 per topic) Recreation Workshop.** Critical examination and analysis of innovative programs and practices in one of the following areas: (a) commercial, (b) group dynamics, (c) outdoor education, (d) outdoor recreation, (e) mentally retarded, (f) emotionally disturbed, (g) campus recreation services; (h) tourism, (i) aging, (j) prisons and detention centers, (k) physically handicapped, (l) budget and finance, (m) liability, (n) maintenance of areas and facilities, and (o) personnel. Critical examination and analysis of innovative programs and practices in the maintenance of grounds and facilities. Maximum of six hours to count toward master's degree.

**485-2 to 12 Practicum in Outdoor Education.** A supervised experience in a professional setting. Emphasis on administrative, supervisory, teaching, and program leadership in outdoor, conservation, or environmental education setting. Costs for travel are the responsibility of the student. Prerequisite: consent of instructor.

**490-12 Internship in Recreation.** Supervised practicum experience in a professional recreation setting. Emphasis on administrative, supervisory, teaching, and program leadership in the student's area of specialization. For undergraduate credit only. Must be taken during student's senior year. Prerequisite: 16 hours of recreation and consent of instructor. Mandatory Pass/Fail.

**500-3 Principles of Recreation.**

**520-3 Park and Recreation Management.**

**524-3 Professional Skills in Therapeutic Recreation.**

**525-3 Recreation for Special Populations.**

**526-3 Professional Issues in Therapeutic Recreation.**

**530-3 Programs in Recreation.**

**550-3 Research in Recreation.**

**560-6 (2, 2, 2) Seminar in Recreation.**

**565-3 Seminar in Environmental and Outdoor Education.**

**570-3 Seminar in Recreation Management.**

**575-1 to 6 Individual Research.**

**580-1 to 6 Readings in Leisure and Recreation.**

**596-1 to 6 Field Work in Recreation.**

**599-1 to 3 Thesis.**

**601-1 to 12 per semester Continuing Research.**

## Rehabilitation (Institute, Major [Graduate Only], Courses)

Courses in this department may require the purchase of supplemental materials not to exceed \$10 per course. Field trips are required for certain courses.

### Courses

**400-2 to 3 Introduction to Rehabilitation.** An introduction to the broad field of rehabilitation, to include the processes (services), facilities and personnel involved. Note: students can enroll in the didactic portion for two credits, or three credits if they elect the field trips. No student can take the field trips alone without taking the didactic portion as well.

**401-3 Rehabilitation for Non-Majors.** An introduction to the process and practice of rehabilitation for students not majoring in this field. An overview of counseling, evaluation, physical restoration, adjustment services, job placement, and rehabilitation administration will be presented.



Also a survey of client characteristics will be provided. Clients with sensory, physical, developmental, and psychiatric disabilities will be discussed. Career opportunities in rehabilitation will be examined.

**402-1 to 3 Human Development and Behavior.** Examines theories and systems of human development, personal behavior patterns and learning principles related conceptually to rehabilitation processes and practices. Prerequisite: consent of instructor.

**403-3 Independent Living Rehabilitation.** Survey of principles and methods of independent living for the handicapped with attention to client assessment for rehabilitation, effective techniques for specific handicapped groups, and the variety of types and organization of independent living programs.

**406-3 Introduction to Behavior Analysis and Therapy.** A survey of the principles and procedures in behavior analysis and therapy and the scope of its application to human needs and problems.

**419-1 to 3 Cross-Cultural Rehabilitation.** (Same as Black American Studies 490.) Major focus on the relationship/comparison of basic cultural, economic, and psychosocial processes relative to the rehabilitation of people in contemporary societies. Prerequisite: consent of instructor.

**421-3 Vocational Development and Placement.** Relates the psychosocial meaning of work, process of vocational development, theories of occupational choice and labor market trends to current and innovative methods of job development, selective placement, and follow-up with the handicapped. Prerequisite: consent of instructor.

**425-1 to 6 Developing Employment Opportunities.** Designed to train rehabilitation personnel in the attitudes, methods, and skills pertinent to placement of handicapped persons in competitive and other occupations. Prerequisite: special standing and consent of instructor.

**431-3 Assessment of Procedures in Rehabilitation.** Review of fundamental bases of measurement, criteria for evaluating tests, practice with representative instruments in major categories, and the use of tests and work samples in assessing the handicapped's functioning abilities and work potential. Prerequisite: consent of instructor.

**436-3 to 4 Vocational Evaluation and Adjustment Services.** Introduction to the philosophies of evaluation and adjustment services in rehabilitation settings with emphasis on the rationale for use of psychometric testing, functional behavioral analysis, work sampling, situational assessment, and on the job evaluation in relation to the development of individualized adjustment service programs.

**445-3 to 12 Rehabilitation Services with Special Populations.** Procedures and programs pertinent to the care and treatment of special populations. Three semester credits will ordinarily be granted for each unit. Prerequisite: consent of instructor.

(a)-9 (3, 3, 3) **Alcohol and Drug Abuse.**

(b)-9 (3, 3, 3) **Emotionally Disturbed.**

(c)-9 (3, 3, 3) **Juvenile Offender.**

(d)-9 (3, 3, 3) **Mental Retardation.**

(e)-9 (3, 3, 3) **Physically Disabled.**

(f)-9 (3, 3, 3) **Public Offender.**

(g)-9 (3, 3, 3) **Sensory Disabled.**

(h)-9 (3, 3, 3) **Developmental Disabilities.**

**446-3 Psychosocial Aspects of Aging.** Selected theories of psychosocial aspects of aging will be presented and the psychological and sociological processes of aging with the ensuing changes will be related to these conceptual frameworks. Included for discussion and related to field experience will be such concerns as stress reactions to retirement, physical disabilities, impact of reduced economic resources, and other personal-social changes in aging. Topics will address the knowledge base needed by students concerned with rehabilitation of aging clients in institutional, community and home settings. Therapeutic techniques to ameliorate these stresses will be an integral part of the course. Prerequisite: consent of instructor.

**447-3 Biomedical Aspect of Aging.** The aging process in a life-span developmental perspective; biological theories of aging, physiological changes in middle and old age and their effects on behavior, performance potential, and psychosocial functioning; senility and other age-related disabilities, their prevention and management; geriatric health maintenance and rehabilitation; institutionalization; death and dying. No prerequisites.

**451-3 to 4 General Rehabilitation Counseling.** A didactic and experiential analysis of the underlying premises and procedures of individual and group counseling in rehabilitation settings. Prerequisite: consent of instructor.

**452-3 Behavior Change Applications.** An overview of the development and evolution of applied behavior analysis. Applications of behavior analysis to problems of social significance in institutions, schools, and communities are surveyed. Prerequisite: 406 or consent of instructor.

**453-1 to 4 Personal and Family Life Styling.** The academic and personal competencies that are characteristic of fully-functioning, integrated persons within the context of our twentieth century environment will be systematically reviewed for adoption in every day living as well as in professional functions. Participants will focus on and experience life styling theories, models, and skills for their own growth and development and learn to assess basic risk-factors in their rehabilitation clients and families prior to helping them program a more balanced, synergistic, and holistic approach to living. Prerequisite: consent of instructor.

- 461-3 Introduction to Alcoholism.** A survey of alcohol abuse and alcoholism, focusing on its development, consequences and rehabilitation; also addressed are population characteristics and other demographic information, as well as relevant legislative and administrative issues.
- 468-3 Sexuality and Disability.** Research and rehabilitation practices pertaining to the unique psychosexual aspects of various chronically disabling conditions will be examined.
- 471-3 Rehabilitation of the Alcohol Abuser.** A comparative survey of alcoholism rehabilitation programs focusing on the philosophy and treatment/rehabilitation models of each, as well as the role of the rehabilitation counselor in these settings. Prerequisite: 461 or consent of instructor.
- 479-3 Technical Writing in Rehabilitation.** Fundamentals of writing skills for rehabilitation specialists, including preparation and drafting of program/grant proposals, vocational evaluation/work adjustment reports, news releases and other publicity materials. Prerequisite: consent of instructor.
- 490-1 to 6 (1 to 3 per semester) Readings in Rehabilitation.** Supervised readings in selected areas. Prerequisite: consent of instructor.
- 494-1 to 12 Work Experience in Rehabilitation.** Rehabilitation 494 and 594 both cannot be counted for a graduate degree, only one or the other can satisfy requirements toward a master's degree. Prerequisite: consent of department.
- 501-3 Rehabilitation Foundations.**
- 503-3 Basic Behavior Analysis.**
- 508-3 Complex Behavior Analysis.**
- 509-4 (2, 2) Behavior Analysis Research Designs.**
- 512-3 Legal and Ethical Issues in Behavior Analysis.**
- 513-1 to 4 Medical and Psycho-Social Aspects of Disability.**
- 515-3 Behavioral Applications to Medical Problems.**
- 523-3 Job Restructuring for the Handicapped.**
- 525-3 Developing Job Readiness.**
- 531-3 Individual Assessment Procedures in Rehabilitation.**
- 533-3 Vocational Appraisal.**
- 535-3 Behavioral Observation Methods.**
- 543-3 Child Behavior.**
- 545-3 Behavior Modification in Mental Retardation.**
- 553-3 Learning Therapies for Special Populations.**
- 554-3 Behavior Therapy.**
- 557A-3 Self-Regulation of Behavior: Self Control.**
- 557B-3 Self-Regulation of Behavior: Biofeedback.**
- 558-3 Rehabilitation with Special Alcoholic Populations.**
- 560-3 Private Sector Rehabilitation.**
- 561-3 Rehabilitation and the Courts.**
- 562-3 Rehabilitation Facilities and Developmental Centers.**
- 563-3 Behavior Analysis: Community Applications.**
- 564-3 School Related Behavior.**
- 565-3 Private Practice Rehabilitation.**
- 566-3 Alcoholism and the Family.**
- 568-3 Sexual Behavior and Rehabilitation.**
- 570-3 Rehabilitation Administration.**
- 573-3 Programming, Budgeting, and Community Resources.**
- 574-3 Staff Training and Development.**
- 575-3 Case Management in Rehabilitation.**
- 576-2 to 3 Development and Supervision of Rehabilitation Employees.**
- 578-3 Program Evaluation in Rehabilitation.**
- 579-3 Advanced Fiscal Management in Rehabilitation.**
- 580-3 Professional and Community Relations in Rehabilitation.**
- 581-3 Professional Issues in Rehabilitation.**
- 582-1 to 4 Seminar in Rehabilitation Services.**
- 583-1 to 4 Seminar in Work Evaluation.**
- 584-1 to 6 (1, to 2 per semester) Seminar in Behavior Analysis and Therapy.**
- 585-1 to 4 Seminar in Counseling/Coordination Services.**
- 586-3 Seminar in Job Development and Placement.**
- 587-3 Seminar in Correlates of Disability.**
- 588-4 Seminar in Research in Rehabilitation.**
- 589-1 to 18 (1 per semester) Professional Seminar in Rehabilitation.**
- 591-1 to 18 Independent Projects in Rehabilitation.**
- 592-1 to 16 Professional Supervision in Rehabilitation.**
- 593-1 to 18 Research in Rehabilitation.**
- 594-1 to 12 Practicum in Rehabilitation.**
- 595-1 to 12 Internship in Rehabilitation.**
- 596-4 Research Design and Methodology in Rehabilitation.**
- 599-1 to 6 Thesis.**
- 600-1 to 30 Dissertation**
- 601-1 to 12 per semester Continuing Research.**



Religious Studies (Department, Major, Courses)

Religious studies examines religious attitudes and behaviors from their earliest beginnings through their dominant forms, east and west, to their modern developments and alternatives, pointing continually to the question, How is religion possible today? Study of this kind makes an interdisciplinary contribution to a liberal education in the humanities and social sciences and also provides a useful base for graduate study in religion, in the arts, or in any of the helping professions such as the ministry, medicine, psychiatry, law, social work, and public service.

Bachelor of Arts Degree, College of Liberal Arts

General Education Requirements .....	45
Supplementary College Requirements (See page 94).....	(4) + 8-14
Requirements for Major in Religious Studies .....	28
Minimum hours distributed as follows:	
Area A: Religious Studies 320a, b, 332, 333, 334, 336, 337, 410f.....	9 <sup>1</sup>
Area B: Religious Studies 201, 240, 301, 302, 341, 362, Sociology 351.....	9 <sup>1</sup>
Free electives from Areas A or B .....	10 <sup>1</sup>
Electives .....	33-39
Total.....	120

<sup>1</sup>Religious Studies 396 and 496 may be designed so as to apply toward fulfilling requirements of either Area A or Area B. By special permission of the department, students may earn up to six hours major credit with courses taken in other departments, such credit to apply to Area A or Area B, or the free elective group as the department shall determine.

Minor

Students may take a minor in religious studies by completing at least 13 hours of courses in the department, excluding GE-C 215 and Religious Studies 496.

Courses

- 201-3 Issues in Religion.** Introduction to religion and its study, illustrated by cross-cultural examples.
- 240-3 The Self and the Sacred.** Cross-cultural and contemporary images of the self as they relate to self-understanding, the environment, society, and the cosmos.
- 301-3 Philosophy of Religion.** (See Philosophy 301.)
- 302-3 Religion, Reform, Revolution.** Changing patterns in religion since the Second World War.
- 303-3 Women and Religion.** (Same as Women's Studies 330) How has the rhetoric of sexuality and traditional western God-talk shaped our religious lives as women and men? Have we alternatives, and do we want them? Readings by authors such as Rosemary Ruether, Carol Christ, and Mary Daly will be augmented by primary source material from church theologians and contemporary fiction.
- 320-6 (3, 3) Biblical Studies.** A survey of Jewish and Christian biblical writings: how they came to be written, for what purposes, and with what effects. (a) The Old Testament. (b) The New Testament.
- 332-3 Jewish Ideas and Culture.** Selected Jewish rites, beliefs, and customs and their cultural roots and consequences.
- 333-4 Myth and Ritual in Archaic Religion.** (Same as Black American Studies 385.) The structure of the sacred among selected primitive peoples in Africa, Asia, and the Americas. Primitivism as a mode of being in contemporary culture.
- 334-3 Religions and Cultures of Asia.** An introduction to the major religions of India, China, and Japan.
- 335-4 The Kingdom of God in America.** Uses primary source materials from American theologians, religious leaders, and novelists to investigate the cultural and religious dominance of the Protestant vision of the Kingdom in America. Special attention given to contemporary issues and movements.
- 336-4 The Christian Heritage.** A thematic and historical survey of European Christian thought using selected writers such as St. Paul, St. Augustine, Dante, C.S. Lewis, Dietrich Bonhoeffer.

- 337-3 Islamic Religion and Culture.** Religious and cultural developments in the Islamic world from Mohammed to current problems and modernization.
- 341-4 Mysticism and Human Transformation.** Comparative studies in selected "classical" mystics, and their meaning for contemporary world views.
- 351-4 Sociology of Religion.** (See Sociology 351.)
- 362-3 Literature and the Religious Imagination.** Investigates the role of storytelling as it has shaped Western religious experience. Explores the questions of the religious imagination as revealed in the works of modern writers and playwrights.
- 396-1 to 6 (1 to 3 per topic). Comparative Studies in Religion.** Special topics in religion, to be announced in advance. Both students and faculty may suggest ideas. May be repeated as the topic varies up to a maximum of 6 hours. Prerequisite: departmental approval.
- 410F-3 Comparative Religion.** (See Anthropology 410F.)
- 496-1 to 6 Honors Readings in Religion.** Topics selected by student and instructor which ordinarily are not covered in depth in regular course offerings. Not available for graduate credit. Prerequisite: consent of department.

## Respiratory Therapy Technology (Program, Major)

(SEE ALLIED HEALTH CAREERS SPECIALTIES)

Respiratory therapy is an allied health specialty concerned with the treatment, management, control, and care of patients with deficiencies and abnormalities associated with respiration. It involves the therapeutic use of medical gases and administering apparatus, environmental control systems, medications, ventilatory control and breathing exercises, cardiopulmonary resuscitation, and maintenance on natural, artificial, and mechanical airways.

The respiratory therapy technology curriculum is designed to prepare students to become registered respiratory therapists. Completion of the course provides graduates with the educational requirements necessary to take the national registry examination administered by the National Board of Respiratory Care (NBRC) and the Pulmonary Specialty Exam (CPFT).

To be accepted into the respiratory therapy technology program, the student must be admitted to both the University and the allied health careers specialties program. The advanced respiratory therapy courses consist of both formal classroom and clinical experiences. The clinical experience will be in a variety of locations to provide maximum opportunity for procedures. Upon satisfactory completion of the curriculum, the student is awarded two associate degrees. One with a major in allied health careers specialties and one with a major in respiratory therapy technology. It is highly advisable that the student complete all prerequisites before starting the professional sequence. The student should have all program application materials completed before March 1 for fall entry.

These professional courses can be completed in one and one-half calendar years (three semesters and one summer session). While the regular semesters will utilize both classroom and clinical education experiences, the final fall semester is a full-time clinical internship at a designated full-service hospital.

### Associate in Applied Science Degree, School of Technical Careers

#### *Requirements for Major in Respiratory Therapy Technology*

Completion of Allied Health Careers Specialties degree program . . . . .	65
Respiratory Therapy Advanced Courses (Allied Health Careers Specialties designated) . . . . .	22
<i>Total</i> . . . . .	87

### Courses

(SEE ALLIED HEALTH CAREERS SPECIALTIES)



## Science (College, Courses)

### Courses

**257-2 to 8 Concurrent Work Experience Credit.** Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for ongoing work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program before registration. Mandatory Pass/Fail.

**258-2 to 8 Work Experience Credit.** Practical experience in a laboratory or other work directly related to course work in a College of Science program and to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit for past work experience is sought by petition and must be approved by the dean and the executive officer of the student's major program. No grade for past work experience.

**259-2 to 24 Vocational Education Credit.** Formal, post-secondary, educational credit earned in a military service or other vocational, technical, or occupational program and directly related to the student's educational objectives may be used as a basis for granting credit in the College of Science. Credit is given when specific program credit cannot be granted and is usable for elective credit only. Credit is sought by petition and must be approved by the dean and the executive officer of the student's major program.

**388-0 to 36 Study Abroad.** Provides credit toward the undergraduate degree for study at accredited foreign institutions or approved overseas programs. Final determination of credit is made on the student's completion of the work. Zero to eighteen credits per semester, zero to nine for summer session. Prerequisite: one year of residence at Southern Illinois University at Carbondale, good academic standing, and prior approval of the course of study by the major department and the College of Science.

**500-2 Science Information Sources.**

**501-4 Research Transmission Electron Microscopy.**

**502-4 Research Scanning Electron Microscopy.**

## Secondary Education

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Secretarial and Office Specialties (Program, Specialized

Major, Minor, Courses)

Current developments in office systems and related technology have resulted in many opportunities for information support personnel with special interests and extensive, specialized skills. Both men and women find rewarding careers in administrative support, information systems, and court reporting fields.

A student may earn credit by class attendance; transferring credits from an accredited post-secondary school, such as a community college; passing a proficiency examination; credit granted for work experience; or credit granted for work completed in other educational situations.

The student may prepare for a position in a field of special interest by working with an adviser to choose from a variety of allied health, administrative, technical, legal, and business courses to build upon the basic information support requirements in creating an individualized program of study. The student interested in legal information support would take additional courses in legal document production, legal administrative support procedures, and applied law. The administrative assistant student would take courses in administrative document production, administrative support procedures, and office management and su-

pervision. One who wishes to become a medical administrative assistant would develop a program including courses in physiology, health insurance processing, and medical administrative support procedures. The word processing student would take courses in introductory word processing, introductory data processing, word processing applications I and II, and word processing operations and control. They will have hands-on training on several different types of equipment. It is possible to design programs without shorthand. All students will receive on-the-job experience related to their areas of emphasis.

Students entering court reporting must be able to type 30 words per minute. In addition, good language skills are recommended. Court and conference reporting may be pursued within the associate degree program, or as a post-associate offering for those who have completed an associate degree in a related field at a community college or other post-secondary institution. Students combine classroom instruction with actual courtroom experience in the company of an official reporter in preparation for state and national shorthand reporters examinations.

Moreover, a student may develop an individualized program of study other than those described above in the following manner:

- 1. The student should consult the program coordinator about a possible change.
- 2. Students should draft a program which is coherent and unified, showing courses they plan to take, and explaining the purpose of the program. It must meet the general requirements for associate degree programs.
- 3. The completed program must have the support of at least one faculty member and the coordinator.

Students who have an excellent background in office skills are eligible for a program of advanced curriculum entry (PACE) which allows students to complete an associate degree in one summer and one year.

The purchase of cassette tapes and supply packets or a charge is mandatory for students enrolled in learning center courses. A list of the requirements for all learning center courses will be sent upon request. Over a two-year period this would amount to \$20 to \$60 per student. Students enrolled in court reporting are required to purchase a shorthand machine at the end of their first year. Machines are available for rental during the first year of the program.

An advisory committee composed of business and court reporting personnel serves the program.

**Associate in Applied Science Degree, School of Technical Careers**

*Requirements for Specialized Major in Secretarial and Office Specialties*

GE-D 101.....	3
GE-D 118.....	2
GE-D 152.....	3
School of Technical Careers 120.....	3
Vocational Education Studies 302 .....	3
Secretarial and Office Specialties 101a,b,c,d, 104.....	13.5
Other requirements dependent upon specialty program, Including cooperative experience or practicum .....	37.5-47
<b>Total.....</b>	<b>65-74.5</b>

**Minor in Secretarial and Office Specialties (for students with a major in Spanish)**

The minor in secretarial and office specialties is intended for students who wish to train as bilingual secretaries with a major in Spanish. For those skilled in the secretarial areas of shorthand, typing, and transcription the minor requirements are Secretarial and Office Specialties 106, 107, 109, 201, 205, 208, 232, 233, and School of Technical Careers 101 and 3-7 hours of approved electives in secretarial and office specialties courses. For those unskilled in the secretarial areas of short-



hand, typing, and transcription the minor requirements include the courses above and Secretarial and Office Specialties 101a, b, c, d, 102a, b, c, d, and 104.

## Courses

**100-2 Typewriting.** Designed to develop proficiency in typewriting for students not pursuing a secretarial-related career. The main objective of the course is to develop stroking technique while emphasizing speed and accuracy. In addition to the typewriting skill, manuscript styles with footnotes, personal and business letter styles, and machine manipulation will be included. Lecture two hours. Learning Center two hours.

**101-10 (3, 2, 2.5, 2.5) Keyboarding.** Upon successful completion of these courses, the student will (a) basic level: develop touch typing techniques, operate machine parts, determine layout of material, machine adjustments, and type basic communications necessary for personal and career purposes, and use correction and carbon copy techniques; (b) intermediate level: set up and type various communication documents; (c) advanced level: set up and type advanced communication documents; (d) pre-specialty level: set up and type special communication documents and develop skills on various electronic and proportional spacing keyboards. Keyboarding speed and accuracy will be emphasized at all levels. Audio-visual-tutorial instruction is utilized at all levels. Lecture two hours. Learning Center three hours per level. Levels must be taken in sequence. Prerequisite: for b, 101a or equivalent; for c, 101b or equivalent; for d, 101c or equivalent.

**102-10 (3, 2, 2.5, 2.5) Shorthand.** Upon successful completion of the course modules, the student will (a) Gregg shorthand theory: demonstrate proficiency in Gregg shorthand theory by reading and writing outlines accurately and rapidly and by taking practice dictation on familiar and related material; (b) basic shorthand dictation and transcription: demonstrate shorthand skill by taking dictation at faster speeds and by transcribing dictated material accurately and rapidly; (c) intermediate shorthand dictation and transcription: attain higher speed and accuracy in shorthand with emphasis on mailability; (d) advanced shorthand dictation and transcription: continue to attain higher speed and accuracy with emphasis on mailability and office-style material. Any shorthand system may be used in modules b, c, and d. Lecture/Learning Center four hours. Modules must be taken in sequence. Prerequisite: 101a for 102a; 101b for 102b; 101c for 102c; and 101d for 102d.

**104-3.5 Machine Transcription (Introduction).** Upon successful completion of this course, the student will properly operate and care for a transcribing unit and develop transcription speed by typing basic business communications from recordings; develop transcription techniques such as typing, grammar, punctuation, sentence structure, form and arrangement, as well as develop a higher transcription speed. The student will be required to make decisions in a variety of assignments. Lecture one hour. Laboratory three hours.

**106-1 Reprographics.** Upon successful completion of this course, students, given a particular reproduction job, will determine the most appropriate reproduction process by considering pertinent factors. They will then perform the necessary operations to reproduce the copies by using the duplicator, mimeograph, offset, and a variety of copiers. Lecture/laboratory two hours.

**107-2 Filing and Records Management.** Upon successful completion of this course, the student will apply filing rules to alphabetic, subject, numeric, and geographic methods; determine supplies for various filing systems; and perform filing techniques and demonstrate an understanding of concepts necessary for the establishment, maintenance, revision of a filing system, including micrographics. Lecture two hours.

**109-3 Calculating Numerical Information.** Upon successful completion of this course, the student will demonstrate skill in calculating numerical information with and without the use of machines such as the ten-key calculator, electronic calculators, and use of computer services, and perform necessary operations required in working with decimals, fractions, percentages, basic statistics, metrics, and graphic displays of numerical information. Lecture/Learning Center four hours.

**140-3 Word Processing Concepts.** Upon successful completion of this course, the student will be able to discuss current office technological trends, list and explain the document processing cycle, identify the elements of a word processing center, and demonstrate a basic knowledge of word processing terminology. The course is designed to introduce the student to word processing concepts and is not a hands-on application course. Lecture three hours.

**180-1 Introduction to Court Reporting.** Upon successful completion of this course, the student will know the types of reporters and their duties, be aware of job availability and career opportunities, understand the court reporters code of ethics, know the role of the reporter in the courtroom, and be familiar with state and national professional associations. Lecture one hour. Prerequisite: 101a.

**182-3 Legal Terminology and Documents.** Upon successful completion of this course, the student will be able to recognize, define, spell, and use legal terminology, including Latin words and phrases. The student will also be able to understand and type legal correspondence, client and court documents, and use a variety of reference books and guides. Lecture three hours. Prerequisite: 101b or concurrent enrollment in 101b.

**183-7.5 (2.5, 2.5, 2.5) Machine Shorthand I, II, and III.** Upon successful completion of these courses, the student will (a) be able to write with the machine by touch words by sound according



to the computer-compatible shorthand theory; write shorthand abbreviations, derivatives, brief forms, and punctuation symbols; read printed text notes and student-made machine notes; take dictation of new material for five minutes at 60 to 80 words per minute with a 95 percent accurate transcript; (b) demonstrate machine shorthand skill by taking dictation of new material for five minutes at 80 to 100 words per minute, reading dictated notes, and writing an expanded vocabulary using correct theory, and accurate transcription of noters; (c) demonstrate machine shorthand skill by taking dictation of new material for five minutes at 100 to 120 words per minute, and rapid and accurate transcription of notes. Lecture five hours; Learning Center five hours. Prerequisite: must be taken in sequence; 101b, c, d or concurrent enrollment.

**184-3.5 Pretranscription for Court Reporting.** Upon successful completion of this course, the student will properly operate a transcription/dictation unit. Emphasis will be placed on the legal/medical aspect of vocabulary, spelling, capitalization, numbers, word division, punctuation, grammar, and proofreading for court reporters. The student will dictate court proceedings and other communications from shorthand notes and will produce transcripts with speed and accuracy. Prerequisite: concurrent enrollment in 101c and 183c.

**185-2.5 Introduction to Legal Testimony.** Upon successful completion of this course, students should be able to take jury charge, congressional record and literary materials at speeds of 110-130 words a minute. Students will be familiar with two-voice dictation and will be able to produce type-written transcripts. Lecture/laboratory five hours, plus Learning Center hours to be arranged. Prerequisite: 103c.

**201-2 to 8 Cooperative Secretarial Experience.** Upon successful completion of this course, the student will apply knowledges and skills learned in classroom situations to on-the-job situations in an office closely related to the student's specialty; apply knowledges and skills learned in classroom situations to courtroom situations. Minimum of one hour conference and twenty hours work experience per week.

**205-2 Office Management and Supervision.** Upon successful completion of this course students will demonstrate competency in the planning, organizing, and controlling of a business office. They will identify proper managerial skills, managerial roles, office services, physical facilities, and records management. Lecture two hours.

**207-2 Personality Development.** Upon successful completion of this course, the student will be able to demonstrate knowledges learned concerning personal hygiene, personality, poise and charm, clothing, and personal ethics. Lecture two hours.

**208-3 Applied Law for Technical Careers.** An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. The student will identify, define, and describe contracts, agency and employment, commercial paper, security devices, and insurance procedures related to the student's technical field. Lecture 3 hours.

**209-3 Applied Law for Technical Careers II.** An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with the fundamental legal practices and procedures common to their area of specialization. Students will identify, define, and describe security devices and insurance, partnership, corporations, real property and environment, personal property and bailments, and commercial paper. Prerequisite: 208 recommended.

**211-3 Health Insurance Processing.** Upon successful completion of this course, students will have an understanding of various common health insurance forms and the procedures involved in processing them in a medical office. Efficient processing will be stressed at the end of the course. Lecture one hour, laboratory three hours. Prerequisite: 101b.

**212-6 (3, 3) Medical Terminology, Dictation, Transcription.** Upon successful completion of this course, the student will (a) demonstrate the use of medical terminology, including prefixes and suffixes; spell and define medical terms and other special terminology used in medical communications/documents; (b) increase speed and accuracy in the use of medical terminology, including special terms, short cuts, and abbreviations in the production of medical communications/documents from shorthand notes or recorded dictation. Lecture/Learning Center four hours. Prerequisite: 101c, 104 or 102c.

**213-3 Medical Administrative Support Procedures.** Upon successful completion of this course, the student will be able to perform necessary duties required of information support personnel in a hospital, clinic, doctor's office or other health-related organization. Lecture two hours, laboratory two hours.

**220-4 Legal Document Production.** Upon successful completion of this course, the student will be able to produce a variety of legal documents, papers and office communications typing from handwritten copy, prepared forms, or using transcription equipment. Emphasis will be on decision making and use of modern word processing equipment and procedures. Lecture two hours, laboratory four hours. Prerequisite: 101d and 104. Concurrent enrollment in 222a recommended.

**222-6 (3, 3) Legal Terminology, Dictation, Transcription.** Upon successful completion of this course, the student should (a) know the spelling, punctuation, meaning and applicable shorthand outlines and be able to take dictation if applicable and transcribe from notes or recorded dictation rapidly and accurately; (b) know specialized terminology related to the legal field, be able to take dictation if applicable and transcribe at faster speeds with accuracy, and be able to handle office-



style situations effectively. Lecture/Learning Center five hours. Must be taken in sequence. Prerequisite: 101c, 102d, or 104. Must be able to take shorthand at 100 words per minute.

**223-3 Legal Administrative Support Procedures.** Upon successful completion of this course, the student will perform necessary duties required of information support personnel in a law office or other law related organization. Lecture two hours, laboratory two hours. Prerequisite: 101d, 222a, and 220 or concurrent enrollment.

**230-4 Administrative Document Production.** Upon successful completion of this course, the student will produce various communications using electronic keyboards, dictation/transcription equipment, and various modern procedures with speed and accuracy. Lecture two hours, laboratory three hours. Learning Center hours to be arranged. Prerequisite: 101d, and 104.

**232-3 Administrative Dictation and Transcription.** Upon successful completion of this course the student will take administrative dictation at speeds of 100 to 120 words a minute, transcribe administrative/specialty communications with emphasis on mailability, and build transcription speeds ranging from 20 to 30 words per minute. Lecture/Learning Center four hours. Prerequisite: 101d and 102d, or ability to take shorthand at 100 word per minute.

**233-3 Administrative Support Procedures.** Upon successful completion of this course, students will be able to perform efficiently administrative support duties including handling mail, telephone situations, composing communications, arranging for travel and conferences, performing basic information processing operations, and carrying out supervisory responsibilities. Emphasis will be on human relations, time management, and organization and planning of work. Lecture three hours. Prerequisite: 101c.

**240-3 Word Processing Applications I.** Upon successful completion of this course, the student will be able to operate basic text editing equipment, format text, store and retrieve text, correct and revise documents, perform selected automatic functions, and produce a printed document. This is the first hands-on application course. Lecture two hours. Laboratory two hours. Prerequisite: 101c, 104.

**241-3 Word Processing Applications II.** Upon successful completion of this course, students will be able to set up, enter, and produce mass mailings with form letters; produce tables and other tabular text using word processing devices; construct and rearrange large documents using word processing equipment; and use advanced text editing techniques. Lecture two hours. Laboratory two hours. Prerequisite: 240.

**242-3 Word Processing Operations and Control.** Upon successful completion of this course, the student will be able to discuss the role of the word processing supervisor, describe the steps involved in conducting a word processing study, explain the procedures for analyzing and implementing a word processing system, and identifying how word processing ties in to larger systems. The course will prepare students to become supervisors of word processing operations and provide them with a knowledge of the responsibilities of a manager of word processing operations. Lecture three hours. Prerequisite: 241.

**243-3 Insurance Office Procedures.** Upon successful completion of this course, the student will perform office duties particular to an insurance office as well as procedures used in all types of offices. Lecture three hours.

**244-1 Machine Transcription (Insurance).** Upon successful completion of this course, the student will be able to transcribe from a transcribing unit most all types of insurance office communications at a rate of speed commensurate to the student's straight copy speed. Students will be required to make decisions in a variety of instances. Lecture/laboratory two hours.

**260-3 Introduction to Text Processing.** Each student will learn the basic operation and function of representative word processing machines and terminals. The lab time will be spent in the development of speed and accuracy in the typing of textual materials. Lecture two hours. Laboratory two hours. Prerequisite: typing skill.

**285-3 Legal Testimony I.** Upon successful completion of this course, students will be able to take jury charge, legal opinion, and testimony materials at 130 to 180 words per minute. Reporting shortcuts and phrases are emphasized. Oral readbacks are stressed. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 185 and ability to take shorthand at 130 words per minute.

**286-3 Literary/Medical I.** Upon successful completion of this course, students should be able to take literary material at speeds of 130 to 180 words per minute. Students should know medical terminology including prefixes, suffixes, and roots of medical words commonly found in depositions and court transcripts. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 185, Allied Health Careers Specialties 141, and ability to take shorthand at 130 words per minute.

**287-3 Legal Testimony II.** Upon successful completion of this course, students should be able to take jury charge, legal opinion, and testimony materials at speeds of 160 to 210 words per minute. Three- and four-voice dictation is introduced and type transcripts are produced. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 285, 286, and ability to take shorthand at 160 words per minute.

**288-3 Literary/Medical II.** Upon completion of this course, students should be able to take literary materials at speeds of 160 to 210 words per minute. Medical terminology will be studied.

Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 286 and ability to take shorthand at 140 words per minute.

**313-5 Advanced Machine Shorthand.** Upon completion of this course, the student should have developed a take speed of 160 words a minute with an accuracy tolerance of five percent on literary material; reviewed computer compatible abbreviations and reporting phrases; increased transcription speed from 40 to 50 words a minute; reviewed rules of punctuation; reviewed legal and medical vocabulary; developed a technical vocabulary; and been introduced to the ethics and responsibilities of the reporting profession. Lecture three hours. Laboratory three hours. Prerequisite: 287, 288, and ability to take shorthand at 200 words per minute.

**316-1 Legal Ethics.** Upon completion of this course, the student should understand the canons of professional ethics as listed in *Cochran's Law Lexicon* and the NSRA Code of Ethics; have observed the etiquette and duties of court reporters by attending court sessions; have taken testimony in court and transcribed that copy in proper, final form; have taken jury duty charges and legal dictation in class at speeds of 100 to 180 words a minute and transcribed that copy with a minimum of 95 percent accuracy; have taken depositions and transcribed them in state-approved form. Lecture/laboratory two hours.

**385-3 Legal Testimony III.** Upon successful completion of this course, students should be able to take jury charge and legal opinion materials at speeds of 190 to 220 words per minute and testimony materials at speeds of 190 to 240 words per minute. Three- and four-voice dictation will be further developed and typed transcription of multiple voice material will be required. Lecture/laboratory five hours. Learning Center hours to be arranged. Prerequisite: 287 and ability to take shorthand at 200 words per minute.

**386-3 Literary/Medical III.** Upon successful completion of this course, students should be able to take literary materials at up to 210 words per minute. Medical terminology is reviewed and further developed. Typewritten transcription is stressed. Lecture/laboratory five hours. Learning Center hours to be scheduled. Prerequisite: 288 and ability to take shorthand at 160 words per minute.

**387-2 to 12 Court Reporting Practicum.** Upon successful completion of this course, students will have spent one hour in lecture in addition to a minimum of 48 hours in assigned general reporting offices and official reporting locations as observers and in on-the-job training under the guidance of experienced reporters. Prerequisite: taking machine shorthand at 200 words a minute.

## Social Studies (Major)

(SEE CURRICULUM, INSTRUCTION, AND MEDIA)

## Social Work (School, Major, Courses)

The social work program offers a professional social work curriculum designed to prepare students for beginning social work practice. The program focuses on direct services and leads to a Bachelor of Science degree with a major in social work.

The curriculum provides an interdisciplinary approach (grounded in the liberal arts) to understanding the relationship of people with their social and community environments. Through examination of the social welfare system, students are helped to identify those factors which limit social functioning and individual growth. The social work profession is committed to maximizing opportunities for minority and disadvantaged populations and this commitment is reflected throughout the social work program.

The social work practice courses provide basic social work skills for prevention and treatment of a variety of human problems. Course content integrates human behavior with the social environment and focuses on ethnic and minority issues, service delivery issues in rural areas, and the effects of discrimination and poverty on populations-at-risk. Experimental learning (simulations, role playing, volunteer experience) is an integral part of the curriculum.

A unique aspect of the social work program is an intensive field practicum. The practicum provides an opportunity to integrate theoretical knowledge and helping skills learned in the classroom with the "real world" settings of southern Illinois social service agencies. A concurrent weekly seminar supports this integration of theory and practice.



The field practicum may be taken over two semesters of the senior year, half-time, or in one semester for a full 40 hour week. Block field placements do not begin during the summer. Approved practicum sites include children, youth, and family service agencies, county and state mental health agencies, gerontological service programs, medical facilities, and community planning and development agencies.

The undergraduate social work program is accredited by the Council on Social Work Education, the national accrediting agency. The degree may be recognized for advanced standing by graduate schools of social work offering advanced standing programs.

For requirements for the graduate degree in social work, see the Graduate Catalog.

*Academic Requirements.* Students must be in good standing in order to be considered for acceptance into the program.

*Advisement.* A student planning to major in social work should consult with the social work academic adviser of the College of Human Resources or a social work faculty member as early as possible in order to plan an orderly and coherent program. Faculty members are available for advice and career guidance information.

**Bachelor of Science Degree, College of Human Resources**

<i>General Education Requirements.</i> . . . . .	45
Must include GE-B 108 and 202	
<i>Requirements for Major in Social Work</i> . . . . .	52
Foundations of Social Work: Social Work 375, 400a, 400b, 411, 421 . . . . .	15
Social Work Practice: Social Work 383, 401, 402, 403, 441, 442, 443, 444 . . . . .	29
Social Work Policy, Practice, and Issues: A total of 3 hours selected from Social Work 450, 461, 463, 466 or other social work electives . . . . .	3
Social Work or Black American Studies 391 . . . . .	2
At least one 300 or 400-level course selected from: anthropology, economics, history, political science, psychology, sociology . . . . .	3
<i>Electives</i> . . . . .	23
<i>Total</i> . . . . .	120

**Courses**

- 289-3 Field Service Seminar.** This seminar is to be taken concurrently with 295 or Community Development 295. Prerequisite: consent of instructor.
- 295-1 to 6 Field Service Practicum in Southern Illinois.** (Same as Community Development 295.) This course is designed for freshmen and sophomores who are volunteering service to community, social service, or health agencies in southern Illinois. Credit based upon time spent in direct service. Approval of agency required for registration. Mandatory Pass/Fail.
- 375-3 Social Welfare as a Social Institution.** Explores the interdependence of social, cultural, political, and economic factors in the history, theory, and practice of social welfare, with special reference to development of the social work profession in response to welfare problems. This class may require field activity.
- 383-4 Interviewing and Interpersonal Helping Skills.** This is an introductory course in interpersonal skills in the social services. Interviewing, history taking, and goal setting are emphasized.
- 391-2 Social Services and Minority Groups.** (Same as Black American Studies 391.) Exploration of the needs, experiences, and attitudes of minority groups pertaining to social welfare services. Implications for policy and programs in such areas of service as physical and mental health, child welfare, family planning, income maintenance, recreation, education, training, and employment.

**396-1 to 3 Readings in Social Work.** Varying topics not ordinarily covered in depth in regular courses and of specific interest to advanced students. Prerequisite: consent of instructor.

**400A-3 Human Behavior and the Social Environment.** A social systems approach to the study of typical human development and behavior. Examination of environmental forces impinging on the individual and implications for social work practice. Not for graduate credit for social work majors.

**400B-3 Human Behavior and the Social Environment.** A continuation of 400a. A social systems approach to the study of diverse/dysfunctional human development and behavior. Not for graduate credit for social work majors. Prerequisite: 400a.

**401-4 Social Work Practice: Individuals and Families.** An examination of problem solving interventions and environmental modifications skills for use with individuals and families. Prerequisite: 375, 383, 400a, and 400b or concurrent enrollment.

**402-3 Social Work Practice: Small Groups.** Examines social work group process with clinical and non-clinical groups. Leadership, roles, goal setting, and interventive strategies are addressed. Not for graduate credit. Prerequisite: 375, 383, 400a, 401, and 400b or concurrent enrollment.

**403-3 Social Work Practice: Community Organization.** An examination of basic approaches to community organization used by change agents and human service workers. Special emphasis is placed on sensitizing students to consumer participation issues. Prerequisite: 375, 383, 400a, 400b, 401, 402.

**411-3 Methods of Social Research.** Examines the principles, concepts and methods of scientific investigation in terms of its application to social work research and practice. Not for graduate credit. Prerequisite: concurrent enrollment in either 401, 402, or 403.

**421-3 Social Welfare Policy.** This course provides an in depth examination of social welfare structure, functions, policy, and programs, as well as strategies for shaping and changing policy. Prerequisite: 375.

**441-6 Social Work in Selected Agencies.** At least 20 hours per week of supervised experience in an approved social work agency with concurrent weekly seminar. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 391, 400a, 400b, 401, 402, 411; and a 2.5 grade point average in departmental prerequisites. Must be taken concurrently with 443. Mandatory Pass/Fail.

**442-6 Advanced Field Practicum.** Supervised field work experience in an approved social service agency with concurrent weekly seminar. At least 20 hours per week. Not for graduate credit. Field work practicums begin only in fall and spring semester. Prerequisite: senior standing, 375, 383, 391, 400a, 400b, 401, 402, 403, 411, 421, and 441, 443 if not taken concurrently in a block placement and a 2.5 grade point average in departmental prerequisites. Must be taken concurrently with 444. Mandatory Pass/Fail.

**443-1.5 Field Practicum Seminar.** The seminar assists the student who is in the field work to systematically conceptualize and integrate the field experience with the generic social work practice model and micro and macro social welfare theory. The seminar builds on and reemphasizes content provided in previous social work courses. Seminar discussion focuses on shared field work experience: practice issues related to social work principles, ethics, and professionalism; and intervention strategies. Not for graduate credit. Must be taken concurrently with 441.

**444-1.5 Advanced Field Practicum Seminar.** The seminar assists the students who is in field work to systematically conceptualize and integrate the field experience with the generic social work practice model and micro and macro social work practice. The seminar builds on and reemphasizes content provided in previous social work courses. Seminar discussion focuses on shared field work experiences: practice issues related to social work principles, ethics, and professionalism; and intervention strategies. Not for graduate credit. Must be taken concurrently with 442.

**450-1 to 6 (1 per topic) Seminar in Special Issues for Social Work.** (a) Practice. (b) Policy and planning. (c) Public welfare services. Topics will be selected from these three areas. Limited to no more than three credit hours per semester. May be repeated as topic varies up to six semester hours. Prerequisite: junior standing and consent of instructor.

**461-3 Child and Family Services.** Problems of child-parent relationships and difficulties in social functioning of children and adolescents. Adoptions, foster home and institutional placements, protective services. Not for graduate credit. Prerequisite: consent of instructor.

**463-2 Social Work with the Aged.** Basic concepts of social work methods applied to the older adult group. Characteristics of the aged group, its needs and potentials. Social trends and institutions involved in services to the aged. Prerequisite: consent of instructor.

**466-3 Public Policies and Programs for the Aged.** An introduction to public policy, program and planning for the aged. A framework is utilized for analyzing policy issues, programs and research in such areas as income maintenance, long term care, transportation, leisure time, housing, and social services in order to aid present and future practitioners who work with the aged.

**489-3 Field Service Seminar.** (Same as Community Development 489.) This seminar is to be taken concurrently with 495 or Community Development 495. Prerequisite: consent of instructor.

**495-1 to 6 Advanced Field Service Practicum in Southern Illinois.** (Same as Community Development 495.) This course is directed at upperclassmen and graduate students volunteering service to community, social service, or health agencies in southern Illinois. Credit based on time spent in direct service. Approval of agency required for registration. Mandatory Pass/Fail.



- 496-1 to 6 Independent Research in Social Work.** Provides opportunity for students to conduct independent research with the guidance of a faculty member. Topics of research are identified by the student and faculty member. Prerequisite: consent of instructor.
- 500-3 Human Behavior and the Social Environment I.**
- 501-3 Human Behavior and the Social Environment II.**
- 502-3 Social Work Processes: Group, Community and Organizational Analysis.**
- 503-3 Foundations of Social Work Fields of Concentration.**
- 504-2 Ethnic Diversity and Social Work Practice.**
- 505-3 Foundations of Social Work and Services.**
- 506-2 Social Welfare Policy Analysis and Design.**
- 510-3 Social Work Practice I.**
- 511-3 Social Work Research.**
- 512-3 Research Design/Theory Building.**
- 520-3 Social Work Practice II.**
- 522-3 Professional Issues: Diversity, Ethics and Values.**
- 530-2 Social Work Practice III.**
- 531-2 Selected Topics in Advanced Social Work Practice I.**
- 532-2 Evaluative Research Practicum.**
- 533-2 Social Work Practice in the Schools.**
- 535-2 Legal Aspects of Social Work Practice.**
- 540-2 Social Work Practice IV.**
- 541-4 Social Work Practicum I.**
- 542-4 Social Work Practicum II.**
- 543-7 Social Work Practicum III.**
- 544-7 Social Work Practicum IV.**
- 546-1 to 6 Selected Topics in Advanced Social Work Practice II.**
- 550-2 Social Work Practice in Health and Mental Health Settings.**
- 555-2 Impacts of Health/Mental Health Policy and Programs on Social Work Practice.**
- 556-1 to 6 Selected Topics in Health/Mental Health Policy and Program Issues.**
- 557-2 Community Mental Health and the Black Community.**
- 558-2 Women and Community Mental Health.**
- 559-2 Aging and Mental Health.**
- 560-2 Social Work Practice with Children and Youth.**
- 565A-2 Child Welfare Policy and Program Issues.**
- 565B-2 School Social Work Policy and Program Issues.**
- 566-1 to 6 Selected Topics in Child Welfare Policy and Program Issues.**
- 567-2 Seminar in School Social Work.**
- 570-2 Gerontology and Social Work.**
- 575-2 Policy and Program Issues of Aging.**
- 576-1 to 6 Selected Topics in Aging Policy and Program Issues.**
- 577-1 to 2 Selected Topics in Research Methodology.**
- 578-2 International Social Work.**
- 599-3 Thesis in Social Work.**
- 601-1 to 12 per semester Continuing Research.**

## Sociology (Department, Major, Courses)

Sociology is the science of society. It explains how human groups, institutions, and social movements shape our lives. Sociology has always been a discipline which prepares students to think and act critically in the practical details of life. Sociology students, therefore, study such topics as sex roles, the city, juvenile delinquency, marriage and the family, criminology, social change, complex organizations, and political economy.

Training in sociology is basic both to creative living and to such practical tasks as the development and effective working of businesses, families, community service agencies, political movements and parties, churches, social clubs, government, industry, and schools.

Those with degrees in sociology find meaningful and rewarding employment as journalists, consultants, social change agents, advisers to government, politicians, clergy, educators, diplomats, and other occupations. Moreover, an undergraduate major in sociology is excellent preparation for those anticipating graduate school in law, computer science, social welfare, the ministry, community development, teaching, public administration, business administration, journal-

ism, and many of the technological and scientific fields. In addition, many students have enjoyed the benefits of double majors or major-minor combinations between sociology and one of these related fields.

The Department of Sociology offers two alternative plans of study for completion of its major. General sociology is for those seeking a broad academic background in sociology and is usually chosen either by those who want a general liberal arts education in the social sciences or those anticipating graduate study in one of the social sciences. Applied sociology combines general studies in sociology with individually planned programs built around applied courses, including field work experience. The applied sociology plan is primarily for those who seek careers in those governmental, business, or community service occupations for which graduate school training is either unnecessary or taken as an option somewhat later in one's career.

The major requires 8 hours for the sociology core requirements which are 301 and 312. Also required are four hours of senior year experience in 497 which will involve supervised study for those interested in general sociology or 498 which will involve supervised field experience for those interested in applied sociology. The remaining 20 hours required for the major must include at least eight hours at the 400 level and may be elected from regularly scheduled departmental courses. Transfer students must earn at least 20 hours of sociology credit at Southern Illinois University at Carbondale.

Students wishing to major or minor in sociology should consult with the director of undergraduate studies in sociology as early as possible to plan an orderly program that fulfills departmental requirements and the interests of the student. Thereafter, sociology majors should meet with their departmental adviser each semester to keep up-to-date their academic records and to receive advice and approval for sociology courses which they wish to take during their next term of study.

**Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> .....	45
<i>Supplementary College Requirements (See page 94)</i> .....	(4) + 8-14
<i>Requirements for Major in Sociology</i> .....	32
Sociology Core Requirements .....	8
Sociology 301 or equivalent .....	4
Sociology 312 .....	4
Senior Year Work .....	4
Sociology 497 (General Sociology) or 498 (Applied Sociology)	
Sociology Electives .....	20
At least eight hours must be earned in 400-level courses.	
<i>Electives</i> .....	<u>29-35</u>
<i>Total</i> .....	120

**Minor**

A minor in sociology consists of a minimum of 16 hours of which four must be Sociology 301 or equivalent. Students completing a minor in sociology to meet part of the requirements for a teaching certificate in the state of Illinois must complete these requirements.

**Honors Program**

The department offers an honors program for academically outstanding sociology majors. Qualifications for acceptance into this program are: (1) an overall grade point average of at least 3.00; and (2) completion of 8 hours in sociology courses with a grade point average of at least 3.25. Three honors courses are offered at the



junior and senior class levels. For details, qualified students interested in this program should consult the director of undergraduate studies in the Department of Sociology.

## Courses

**101-2 The New Student in the University.** Investigates the purposes of higher education, increases knowledge and utilization of the university and the learning process. Only for first semester students at this university. Special sections for junior college transfer students and others. Does not apply to hours in sociology major.

**223-3 Women and Men in Contemporary Society.** (Same as Women's Studies 221.) Examines theories of women's and men's roles in society. Surveys contemporary gender inequalities in the U.S. and developing countries. Special attention given to employment, race, sexual assault, feminist movements, alternative family/lifestyles and childrearing.

**301-4 Principles of Sociology.** This course is intended to acquaint sociology majors and prospective majors with basic principles in a broad sampling of substantive areas of contemporary sociology as background for more advanced courses.

**302-3 Contemporary Social Problems.** Review of the basic sociological perspectives used in the study of social problems; discussion and analyses of selected contemporary social problems; assessment of alternative courses of action for the solution of problems.

**308-3 Statistics for Social Science.** Methods and application of statistics in the social sciences. Measures to describe distribution, measures of relationship, statistical inference.

**312-3 Elements of Sociological Research.** The student is introduced to a variety of research methods in the social sciences including use of the library, techniques of observation, and elementary steps in quantitative measurements and analysis.

**316-3 Political Socialization.** (See Political Science 316.)

**321-3 Society and the Individual.** Examines the relative influence of individual characteristics, face-to-face interactions, and larger social structures in shaping human behavior. Emphasis is on socialization through the life cycle and in various sectors of society (family, schools, work settings.) Explores related topics of attitude formation and change, social influence, the self and self esteem, groups processes, and social power.

**330-3 Sociology of Business and Industry.** A sociological examination of the development of the modern corporation in its social, economic, and political environments. Consideration will be given to various theoretical approaches to the firm. Sociological analysis will be undertaken in selected areas such as labor management relations, women in the corporation, and the corporation and the community.

**335-3 Urban Sociology.** Development of cities and urban social life; present day ecology of cities: suburbs, ghettos, blight; strategies of urban renewal; urban life styles; violence and acute urban problems; urban housing needs; designing safe neighborhoods; urbanization in Europe and developing countries.

**340-3 Family.** The family in historic and contemporary society; evolution of the modern family; changes in family functions, structure, roles; and an examination of variation and change in family systems.

**351-3 Sociology of Religion.** (Same as Religious Studies 351.) The origin and function of religious ideas and institutions in society, their relationship to social change and stability.

**371-3 Population Problems.** Characteristics and problems of population growth, composition, distribution, mortality, birth control and fertility, international and internal migration, and government policies.

**372-3 Criminology.** The nature of crime; criminal statistics; causal factors and theories of criminality; types of criminals.

**385-3 Energy and Society.** Development of human social organizations accompanied by increasing control of power, technology, and energy resources. Review of changes in social institutions, social processes, and energy use. Aspects of energy development, conservation, and control.

**396-1 to 6 Readings in Sociology.** Instructor and student select reading topics which are not covered in depth in regular course offerings. Prerequisite: consent of department and instructor.

**397-3 Special Topics in Sociology.** Varying sociological topics selected by the instructor for study in depth and breadth. Topics will be announced in advance of registration for the course. Prerequisite: consent of department and instructor.

**406-4 Social Change.** Theories and problems of social change; their application, with emphasis on the modern industrial period.

**412-4 American and Soviet Society.** A sociological perspective on American and Soviet society. Combines a macroscopic analysis of major social institutions with microscopic examination of everyday life; shows how each social system molds personality and how socially acquired habits reinforce the social system. Designed to meet the needs of students interested in comparative and political sociology as well as those searching for an understanding of the problems of the two super powers. Prerequisite: none, 301 recommended.

**415-3 Logic of the Social Sciences.** (See Philosophy 415.)

**423-4 Sociology of Gender.** (Same as Women's Studies 442.) Examines social science theory and

research on gender issues and contemporary roles of men and women. The impact of gender on social life is examined on the micro level, in work and family roles, in social institutions, and at the global, cross-cultural level.

**424-4 Social Movements and Collective Behavior.** A sociological analysis of the behavior of collectivities in uninstitutionalized settings; crowds, masses, publics, and social movements will be examined with relation to their social and cultural backgrounds, forms of expression and organization, and their functions in society.

**426-4 Social Factors in Personality and Adjustment.** Review of selected theoretical orientations and research traditions in social psychology. Comparison of different theoretical and methodological approaches – symbolic interaction, role theory, developmental and social psychology, theories of attitude organization and change, studies of belief and value systems, theories of socialization.

**435-4 Social Inequality.** Discussion of theories and evidence pertaining to the socio-structural causes and consequences of inequality based on social class, prestige, power, gender, wealth, and income.

**437-4 Sociology of Development.** Survey of sociological theories of development including modernization, dependency, and world-system perspectives. Problem areas of development are examined: economic growth, state structures, multinational corporations, labor force, education, migration, population, and women's roles.

**450-4 Social Thought.** A survey of Western social thought from the ancient world to the founding of the modern social sciences in the 19th century.

**451-4 Sociology of Language and Signs.** (Same as Speech Communication 446.) Introduction to sociological semiotics with reference to such figures as Eco, Foucault, Derrida, Baudrillard, Saussure, Habermas, the ethnomethodologists. Emphasis on the place of language and signs in sociological explanation.

**454-4 Sociology of Science.** Emphasis on the origins and growth of science in historical perspective, reciprocal relations between science and society in the 20th Century, science as a social system, differentiation within and relations between disciplines, and implications of the social organization of scientific research and funding.

**460-4 Sociology of Medicine.** Examination of the sociological factors involved in health and illness, the role of medicine in society, the organization of medical care and health institutions in the United States, and the prospects for sociological research in this area.

**465-3 Sociology of Aging.** The adult life cycle from a sociological perspective, with emphasis on the later stages of adulthood. Special topics on aging include demographic aspects, family interaction, ethnicity, and cross-cultural trends.

**471-4 Introduction to Social Demography.** Survey of concepts, theories, and techniques of population analysis; contemporary trends and patterns in composition, growth, fertility, mortality, and migration. Emphasis is on relationship between population and social, economic, and political factors.

**472-3 The American Correctional System.** (See Administration of Justice 472.)

**473-4 Juvenile Delinquency.** (Same as Administration of Justice 473.) Nature of sociological theories of delinquency; analytical skills in studying the delinquent offenders; systematic assessment of efforts at prevention, control, and rehabilitation in light of theoretical perspectives. Prerequisite: none; 6 hours of social/behavioral science recommended.

**474-4 Sociology of Education.** Methods, principles, and data of sociology applied to the educational situation; relation of education to other institutions and groups. Prerequisite: 301 or six hours of GE-B courses or consent of instructor.

**475-4 Political Sociology.** (Same as Political Science 419.) An examination of the nature and function of power in social systems at both the macro- and micro-sociological levels of analysis, the social bases of power and politics; and various formal and informal power structures; the chief focus will be on American society.

**497-4 Senior Seminar.** Contemporary issues in sociology and the analysis of these issues. Prerequisite: senior standing with 20 hours in sociology (including 301), or consent of instructor. Not for graduate credit.

**498-1 to 4 Independent Research.** With a faculty member the student arranges a research topic resulting in a paper or report. Prerequisite: senior standing with 20 hours of sociology (including 301), and consent of instructor.

**501-4 Classical Sociological Theory.**

**502-4 Contemporary Sociological Theory.**

**506-4 Seminar on Contemporary Sociological Theory.**

**512-5 Sociological Research.**

**513-4 Methods of Historical Sociology.**

**519-4 Methodological Foundations of the Social Sciences.**

**521-4 Seminar in Social Psychology.**

**522-4 The Sociology of Small Groups.**

**526-8 (4, 4) Quantitative Methods of Sociology.**

**529-4 Sampling and Inference in Social Research.**

**530-2 to 12 (2 to 4 per topic) Topical Seminar in Sociology.**



- 532-4 Urban Social Structure.
- 537-4 Sociology of Law.
- 539-4 Seminar in Complex Organization.
- 542-4 Seminar on the Family.
- 543-4 Seminar in Family Variability and Change.
- 551-4 Sociology of Religion.
- 562-4 Deviance and Disorganization.
- 564-4 Social Factors in Health and Illness.
- 566-4 Sociology of the Community.
- 572-4 Seminar in Criminology.
- 591-1 to 4 Individual Research – Supervised Research Projects.
- 596-1 to 8 Readings in Sociology.
- 599-1 to 6 Thesis.
- 600-1 to 32 (1 to 16 per semester) Dissertation.
- 601-1 to 12 per semester Continuing Research.

## Special Major (Major)

The special major program allows qualified undergraduate students to design their own majors, if no existing major meets their academic needs and interests but existing University resources may be used to satisfy them. Guidelines for developing a special major curriculum are available in the office of the program administrator, the director of Undergraduate Academic Services. These require that the student:

1. obtain a faculty sponsor from a department with studies most like the major,
2. collaborate with the sponsor to propose a workable plan of study, structured coherently around a central topic, with a title that identifies the program's individualized purpose,
3. receive approval of the program proposal from the director of Undergraduate Academic Services,
4. complete at least 28 semester hours, mainly in upper level, 300 or 400, courses and clearly attributable to the special major, after final approval,
5. meet all graduation and course hour requirements of the University and of the college and department which agree to sponsor the special major. Final recommendation for a baccalaureate degree with a special major is the prerogative of the director of Undergraduate Academic Services, with approval of the appropriate college dean.

## Special Education (Department, Major, Courses)

In the Department of Special Education, teachers are prepared to work with behaviorally disordered, mentally retarded, and learning disabled children. Students seeking the Standard Special Certificate will complete a 120 semester hour program leading to approval in one of the three handicap areas listed above. Students who wish to obtain joint certification in special education and elementary education must complete a 144 to 149 hour program.

All programs are fully approved by the Illinois State Teacher Certification Board.

As with other teacher preparation programs within the University, departmental approval must be secured for each student after the student's first semester of membership in the department.

In the Department of Special Education this approval and subsequent approvals are based not only on continued satisfactory academic performance, but acceptable professional behaviors which the faculty deem essential for competent and effective educators of exceptional children and youth.

**Bachelor of Science Degree, College of Education**

SPECIAL EDUCATION MAJOR – STANDARD SPECIAL CERTIFICATE WITH APPROVAL IN BEHAVIORAL DISORDERS, OR MENTAL RETARDATION, OR LEARNING DISABILITIES<sup>1</sup>

<i>General Education Requirements</i> . . . . .	46
GE-A: 9 hours	
GE-B: 9 hours including 202 and 212 or 301	
GE-C: 12 hours including Music 101 (GE-C substitution) and one literature course	
GE-D: GE-D 101; 117 or 119; GE-D 152 or 153; Mathematics 114 or equivalent to substitute for GE-D 107	
GE-E: 4 hours including 201 and two hours of physical education activity.	
<i>Additional General Education Requirements for Certification</i> . . . . .	20
Art 348; Curriculum, Instruction, and Media 326 or 325;	
Physical Education 202; Mathematics 314	
Psychology 301	
Educational Psychology 412 or Psychology 431	
Special Education 400	
<i>Requirements for Major in Special Education</i> . . . . .	49
<i>Professional Education Requirements</i> . . . . .	26
See Teacher Education Program, page 83; Education 312 <sup>1</sup>	
<i>Special Education Requirements</i> . . . . .	23
Special Education 411, 423, 425 . . . . .	7
Curriculum, Instruction, and Media 312, 315 . . . . .	6
Certification Area . . . . .	10
The certification area requirement must include the specific courses listed and additional courses approved by the department to bring the total in the areas to at least 10 hours.	
Behavioral Disorders: 401, 417, 430	
Mentally Retarded	
Educable Mentally Retarded: 402, 406, 418, 430	
Trainable-Severely/Profoundly Handicapped: 402, 406, 421, 431	
Learning Disabilities: 404, 419, 430	
<i>Electives</i> . . . . .	5
Psychology 305, 307 (both required in behavioral disorders)	
Special Education 410; Curriculum, Instruction, and Media 407e;	
Communications and Fine Arts 497 (if the section is taught as Integrated Arts for the Handicapped)	
<i>Total</i> . . . . .	120

<sup>1</sup>To be certified in two areas of special education, a student must take problem and characteristics courses in both areas, methods courses in both areas and eight hours of student teaching in both areas.

SPECIAL EDUCATION MAJOR – JOINT CERTIFICATION IN SPECIAL EDUCATION AND ELEMENTARY EDUCATION SPECIALIZATION

<i>General Education Requirements</i> . . . . .	46
GE-A: 9 hours	
GE-B: 9 hours including 202 and 212 or 301	
GE-C: 12 hours including Music 101 (GE-C substitution) and one literature course	
GE-D: GE-D 101; 117 or 119; GE-D 152 or 153; Mathematics 114 or equivalent to substitute for GE-D 107	
GE-E: 4 hours including 201 and two hours of physical education activity.	



<i>Additional General Education Requirements for Certification</i> . . . . .	20
Art 348	
Curriculum, Instruction, and Media 326 or 325	
Physical Education 202	
Mathematics 314	
Psychology 301	
Educational Psychology 412 or Psychology 431	
Special Education 400	
<i>Requirements for Major in Special Education</i> . . . . .	69
Professional Education Requirements . . . . .	34
See Teacher Education Program, page 83; Education 312 <sup>1</sup>	
Special Education Requirements . . . . .	17
Special Education 411, 423, 425 . . . . .	7
Certification Area. . . . .	10
The certification area requirement must include the specific courses listed and additional courses approved by the department to bring the total in the areas to at least 10 hours.	
Behavioral Disorders: 401, 417, 430	
Mentally Retarded	
Educable Mentally Retarded: 402, 406, 418, 430	
Trainable-Severely/Profoundly Handicapped: 402, 406, 421, 431	
Learning Disabilities: 404, 419, 430	
Elementary Education Requirements. . . . .	18
Curriculum, Instruction, and Media 315, 312, 423, 424, 426, 435	
<i>Electives (must bring total in general education to 78)</i> . . . . .	13
Psychology 305, 307 (both required in behavioral disorders)	
Special Education 410; Curriculum, Instruction, and Media 407e;	
Communications and Fine Arts 497 (if the section is taught as Integrated Arts for the Handicapped)	
<i>Total</i> . . . . .	149

<sup>1</sup>Includes eight hours of student teaching for special education and eight hours of student teaching for elementary education.

SPECIAL EDUCATION MAJOR – JOINT CERTIFICATION IN SPECIAL EDUCATION AND PHYSICAL EDUCATION

<i>General Education Requirements</i> . . . . .	46
GE-A: 9 hours	
GE-B: 10 hours including 108, 202 and 301	
GE-C: 12 hours including Music 101 (GE-C substitution) and one literature course	
GE-D: GE-D: 101; 117 or 119; GE-D 152 or 153; Mathematics 114 or equivalent to substitute for GE-D 107	
GE-E: 4 hours including 201 and two hours of physical education activity.	
<i>Requirements for Major in Special Education</i> . . . . .	56-57
Professional Education Requirements . . . . .	31
See Teacher Education Program, page 83; Education 312 <sup>1</sup>	
Special Education Requirements . . . . .	25-26
Special Education 400, 411, 423, 425 . . . . .	10
Certification Area. . . . .	9-10
The certification area requirement must include the specific courses approved by the department	
Behavioral Disorders: 401, 417, 430	

Learning Disabilities: 404, 419, 430	
Mentally Retarded	
Educable Mentally Retarded: 402, 406, 418, 430	
Trainable-Severely/Profoundly Handicapped: 402, 406, 421, 431	
Curriculum, Instruction, and Media 312, 315 . . . . .	6
<i>Physical Education Requirements</i> . . . . .	35
Physical Education 115a, b, c; 116a, b, c, or d; 210; 303;	
305; 320; 324; 326; 212; 214; Physiology 209, 300	
<i>Electives</i> . . . . .	6-9
Minimum of 6 hours unless student is emphasizing behavioral disorders in which case 9 hours of electives is required	
Psychology 301, 305, 307, 431	
Educational Psychology 412	
Physical Education 301, 370	
Sociology 473	
Rehabilitation 406	
<i>Total</i> . . . . .	143-147

<sup>1</sup>Includes eight hours of student teaching for special education and eight hours of student teaching for physical education.

## Courses

**400-3 Introduction to Special Education.** Physical, mental, emotional, and social traits of all types of exceptional children and youth. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Case studies, observations, and field trips may be required.

**401-3 Problems and Characteristics of the Behavior Disordered Children and Youth.** Diagnosis, screening, classroom management, placement considerations, goals, and the effective use of ancillary services for the emotionally disturbed and/or socially maladjusted. Emphasis on the understanding of maladaptive behavior through principles of learning and behavior. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

**402-2 Problems and Characteristics of the Mentally Retarded Child.** Emphasizes a developmental approach to understanding and dealing with children who have mildly and moderately reduced mental abilities. Considers historical, theoretical, and practical factors pertinent to mental retardation. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

**403-3 Problems and Characteristics of the Gifted Child.** Designed to help teachers in the identification of and programming for gifted and talented children. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

**404-3 Problems and Characteristics of Learning Disabled Children and Youth.** Behavioral, emotional, physical, and learning characteristics of children and youth, with learning disabilities. Emphasis on receptive and expressive modalities for learning; theories dealing with causes and management. Prerequisite: 400 or concurrent enrollment or consent of department chairperson.

**405-3 Education of the Preschool Handicapped Child.** Emphasizes classroom procedures for enhancing development in children with developmental delay. Covers organization of the curriculum, goal setting, task analysis, lesson planning, and classroom organization. Practicum with preschool handicapped children is an integral part of this course. Prerequisite: 400, concurrent enrollment, or consent of chairperson.

**406-3 Characteristics of Moderately and Severely Handicapped Learners.** Presents historical, theoretical, and research developments in service delivery for severely handicapped individuals of all ages. Provides the basic developmental, instructional, and curricular background essential for prospective educators. Emphasizes a behavioral approach. Thirty hours of observation or equivalent applied experience is required.

**407-3 Characteristics of Deaf and Hard of Hearing.** Emphasizes the basic developmental, psychological, social adaptive, educational, and demographic characteristics of deaf and hearing impaired populations. Includes an historical summary of educational philosophies and techniques that have been developed to meet the unique instructional needs of the hearing impaired. This course includes lectures, observations, and clinical interactions with hearing impaired individuals. Prerequisite: 400 or consent of instructor.

**408-3 Integrating Handicapped Children and Youth in Normalized Environments.** For school personnel who serve directly and indirectly handicapped children and youth. The course focuses on providing the essential characteristic information and skills to appropriately educate the handicapped in a variety of settings.



**409-1 to 6 Cross-Cultural Studies.** Seminar and/or directed independent study concerned with socio-cultural variables affecting the personality characteristics and educational needs of children who are diagnosed as mentally, emotionally, or physically handicapped. Prerequisite: 400 or consent of instructor and department chairperson.

**410-2 International Aspects of Services for the Handicapped.** Focus on innovative ideas and practices in other countries in preschool programs, special education, rehabilitation, vocational training and employment, recreation, community living, organizational structures, and legislation.

**411-3 Assessment in Special Education.** Designed to develop competency in students in the administration, scoring and interpretation of educational tests including the integration of findings from a number of tests. A laboratory fee is required to cover the cost of materials. No textbook is required. Prerequisite: 400; Curriculum, Instruction, and Media 312, 315; Education 304c. Prerequisite or concurrent enrollment in 401, or 402 or 404.

**412-3 Assessment and Remedial Planning for the Preschool Handicapped Child.** An introduction to the assessment of preschool handicapped children including the specifics of screening, tests used by the classroom teacher and observational procedures. A charge for testing materials is required. No textbook is required. Prerequisite: 400 and 405.

**414-3 Assessment and Remedial Planning for Youth in Special Education.** Testing, evaluation, and program development for adolescent students with special learning problems. Purchase of testing materials costing approximately \$12 is required. Prerequisite: 400 and consent of department.

**415-3 Integrated Arts for the Handicapped.** (Same as Communications and Fine Arts 497B.) Designed for teachers and others serving the handicapped. Provides a foundation of information, competencies, and appreciation regarding the major art forms: creative movement, drama, music, and visual arts. Their value in the education and development of the handicapped is shown. Includes actual work with children. Prerequisite: consent of instructor.

**417-3 Methods and Materials for Teaching Behaviorally Disordered Children and Youth.** Psychoeducational procedures used in teaching the behaviorally disordered children and youth. Includes field trips, meetings with parents, and visits by resource persons from schools and agencies. Prerequisite: 411, concurrent enrollment in Education 312 and Education 400.

**418-3 Teaching Educable Mentally Handicapped Children Elementary Level.** Psychoeducational strategies used in teaching the educable mentally handicapped children and youth. Prerequisite: 411 or concurrent enrollment and concurrent enrollment in an approved field experience.

**419-3 Methods and Materials for Teaching Learning Disabled Children and Youth.** Psychoeducational strategies used in teaching children and youth with learning disabilities. Prerequisite: 411 or concurrent enrollment and concurrent enrollment in an approved field experience.

**421-3 Methods and Materials for Teaching Moderately and Severely Handicapped Children.** Emphasizes a behavioral approach (i.e., systematic instruction) in teaching young students with severe handicaps (e.g., moderate MR, severe MR, profound MR, multiple handicapped, autistic). Systematic instruction is discussed in relation to applications across various curriculum domains. Each student must have access to working with moderately or severely handicapped students during the semester. All students are to develop and implement an instructional program during the course of the semester. Prerequisite: 411 or concurrent enrollment and concurrent enrollment in an approved field experience.

**423-2 General Procedures in Special Education.** Deals with methods, materials, and instructional management practices common to the instruction of the handicapped. Prerequisite: 411; concurrent enrollment in Education 312.

**425-2 Home-School Coordination in Special Education.** Consideration of the techniques used in parent interviews, conferences, and referrals by school personnel with parents of handicapped children. Prerequisite: 400 or consent of department chairperson.

**427-3 Methods and Materials for Teaching Deaf and Hard of Hearing.** Includes specific assessment techniques and modifications for developing appropriate curriculum and instructional programming for hearing impaired students, including all areas of skill development; reading, language, mathematics, motor, social adaptive. The students will be required to demonstrate both assessment adaptations and teaching strategies at field sites. Each participant must develop and conduct an instructional program with prelingually severely hearing impaired children or youth. Prerequisite: 407.

**430-3 Work-Study Programs for Handicapped Adolescents to Age 21.** Deals with modifications of and additions to school programs to insure that they are appropriate to the needs of the mildly handicapped adolescent. Includes detailed coverage of joint workstudy programs, as preparation for vocational adequacy. Prerequisite: 400 and one of 401, 402, 403, or 404.

**431-2 Work-Study Programs for Severely Handicapped Adolescents to Age 21.** Deals with program offerings in public school special education programs designed to prepare the severely handicapped adolescent for maximum vocational adequacy. Prerequisite: 400 and one of 401, 402, 404, or 406; and approved field experience.

**456-4 (2, 2) Music for Exceptional Children.** (See Music 456.)

**490-1 to 4 Readings in Special Education.** Study of a highly specific problem area in the edu-

- cation of exceptional children. Open only to selected seniors. Not for graduate credit. Prerequisite: 400 and consent of department chairperson.
- 500-3 Special Education Research Problems.
- 501-3 Methods and Materials for Seriously Behavior Disordered.
- 503-3 Educational Program Delivery for Gifted and Talented Students.
- 505-3 The Pre-School Handicapped Child.
- 511A-3 Advanced Assessment and Remedial Planning in Special Education.
- 511B-3 Advanced Remediation in Special Education.
- 512-3 Advanced Assessment and Remedial Planning for the Preschool Handicapped Child.
- 513-3 Organization, Administration, and Supervision in Special Education.
- 514-3 Simulation of Administrative Tasks in Special Education.
- 515-2 Itinerant and Resource Teaching in Special Education.
- 516-3 Advanced Assessment for Educationally Handicapped Youth in Special Education.
- 517-2 The Atypical Child and Social Agencies.
- 518-1 to 6 Workshop in Special Education.
- 519-3 Career Development Opportunities for Educationally Handicapped Youth.
- 523-3 Technology Usage in Special Education.
- 550-3 Behavior Management of Exceptional Children and Youth.
- 560-2 Inservice Delivery.
- 576-3 Correctional Education Programming.
- 578-3 Legal Framework for Special Education Services.
- 580-3 Master's Seminar: Issues and Trends in Special Education.
- 582-3 Post-Master's Seminar: Theories and Models in Special Education.
- 583-3 Post-Master's Seminar: Program Coordination in Special Education.
- 584-3 Doctoral Seminar: Research in Special Education.
- 585-3 Doctoral Seminar: Evaluation in Special Education.
- 586-1 to 4 (1, 1, 1, 1) Proseminar in Special Education.
- 590-1 to 5 Readings in Special Education.
- 591-2 to 5 Independent Investigation.
- 594-1 to 6 Practicum in Special Education.
- 595-1 to 12 (1 to 6) Internship.
- 599-2 to 6 Thesis.
- 600-1 to 32 (1 to 16 per semester) Dissertation.
- 601-1 to 12 per semester Continuing Research.

## Speech Communication (Department, Major, Courses)

The Department of Speech Communication offers courses in the history, theory and application of communication. Program specializations prepare majors for professional, artistic, and instructional careers in human communication. The department also sponsors cocurricular activities in debate, forensics, oral interpretation, creative drama, and public relations, all of which are open to non-majors.

To meet requirements for a major in the Department of Speech Communication, a student must demonstrate the following basic skills: the ability to deliver effective public speeches and oral performances of literature; the ability to write clear, correct English prose; the ability to communicate effectively at the interpersonal level as well as in small and large groups; and the ability to understand and apply the theory and research which are relevant to the student's program specialization.

These competencies may be demonstrated by completing any of the major programs described below and by receiving no grade lower than *C* in the courses listed in the *Requirements for Major in Speech Communication* section of the specialization selected by the student. Under certain circumstances, a student may elect to demonstrate a competency by passing a proficiency examination administered by the Department of Speech Communication.

### Bachelor of Science Degree, College of Communications and Fine Arts

SPEECH COMMUNICATION MAJOR – COMMUNICATION ARTS AND STUDIES SPECIALIZATION

*General Education Requirements.* . . . . . 45  
Must include GE-C 200, GE-D 152 or 153



*Requirements for Major in Speech Communication*..... 36  
    Speech Communication 221, 230, 261, 262, 325, 370..... 18  
    Electives in Speech Communication which must include at least  
        three 400-level courses ..... 18  
*Electives* ..... 39  
*Total* ..... 120

SPEECH COMMUNICATION MAJOR – ORAL INTERPRETATION SPECIALIZATION

*General Education Requirements*..... 45  
    Must include GE-C 200, GE-D 152 or 153, GE-E 103d (2 hours),  
        GE-B 202 strongly recommended  
*Requirements for Major in Speech Communication*..... 54  
    Speech Communication 221, 230, 261, 262, 325, 370, 390-3, 433, 471,  
        472, 474, 491-3..... 36  
    English literature courses ..... 12  
        Courses to be determined in consultation with adviser  
    Theatre 213, 217..... 6  
*Electives* ..... 21  
    Recommended that electives be in speech communication, music, film,  
        sociology, psychology, English, theater  
*Total* ..... 120

SPEECH COMMUNICATION MAJOR – PUBLIC RELATIONS SPECIALIZATION

The public relations specialization is an interdisciplinary program designed with the assistance of the Public Relations Society of America.

Building upon the liberal arts and sciences required of all students in the general education program, the curriculum provides fundamental knowledge in social science, business management, marketing, political science, and research methods, and in communication through all types of media. The broad coverage of these disciplines provides a sound preparation for careers and graduate studies in public relations and the several areas included. Through flexibility in the choice of restricted electives, the students are able to select courses in the field of their special interests in preparing for graduate work and specific careers goals.

Membership in the Raymond D. Wiley Chapter of the Public Relations Student Society of America provides opportunities for internships, field trips, job placement, involvement in on- and off-campus public relations projects, and association with the professional practitioners.

The active internship program enables selected students to obtain work-study experiences under the supervision of qualified practitioners in industrial, educational, and non-profit organizations. In most cases, academic credit is earned, and the student sometimes receives a stipend to defray living expenses.

*General Education Requirements*..... 45  
    Must include GE-B 202, 212, GE-D 152 or 153, Economics 214  
        substitutes for GE-B 211  
*Requirements for Major in Speech Communication*..... 71  
    Speech Communication 280, 281, 326, 381, 382, 480, 481..... 21  
    Journalism 300, 310, 311, 315 (may substitute Design 322), and any  
        other 3 hour course in journalism (312, 341, or 370  
        recommended)..... 15  
    Radio-Television 200..... 3  
    Psychology 307 ..... 3  
    Management 304 ..... 3  
    Marketing 304, 363 ..... 6  
    Computer Science 102 or 202 or Accounting 210 ..... 3

Political Science 340 or 213.....	3
<i>Restricted electives</i> .....	14
Selected from speech communication, management, marketing, finance, economics, political science, psychology, sociology, English. Some recommended courses are: Speech Communication 390 (may be repeated to a total of 3 hours), 362, 451, 483, 490; English 290, 390 or other approved English writing courses. Courses in journalism or radio-television do not count as apart of the restricted electives.	
<i>Internship:</i> Speech Communication 494-1 to 4. The internship in public relations is open to selected students with consent of the instructor. Hours taken here apply against hours of restricted electives or other substitutions approved by the instructor.	
<i>Typing:</i> Proficiency of 30 words per minute required.	
<i>Electives</i> .....	4
<i>Total</i> .....	120

### **Bachelor of Science Degree, College of Communications and Fine Arts or College of Education**

#### **SPEECH COMMUNICATION MAJOR – COMMUNICATION EDUCATION SPECIALIZATION**

<i>General Education Requirement</i> .....	45
Must include GE-B 202 and 212 or 301, GE-C 200, GE-C literature, GE-D 152 or 153, GE-E 201 and two hours of physical education courses.	
<i>Requirements for Major in Speech Communication</i> .....	48
Speech Communication 221, 230, 261, 262, 325, 370, 432.....	21
Mass media courses selected from the following: Radio-Television 300m, 300p, 467; Journalism 300, Speech Communication 452. . .	6
Theatre 217 and 354 or 402a .....	6
15 hours of special electives in Speech Communication approved by the department adviser or an approved minor.....	15
<i>Professional Education Requirements (including Speech Communication 431)</i> .....	27
See Teacher Education Program, page 83.	
Speech Communication 230 and 390 substitute for Education 312.	
<i>Total</i> .....	120

### **Bachelor of Arts Degree, College of Liberal Arts**

<i>General Education Requirements</i> .....	45
Must include GE-C 200 and GE-D 152 or 153	
<i>Supplementary College Requirements (See page 94.)</i> .....	(4) + 8-14
<i>Requirements of Major in Speech Communication</i> .....	36
Speech Communication 221, 230, 261, 262, 325, 370.....	18
Speech Communication electives which must include at least three 400-level speech communication courses.....	18
<i>Electives</i> .....	25-31
<i>Total</i> .....	120

#### **Minor:**

A 15-hour minor in speech communication should be planned in consultation with the chairperson of the department or the undergraduate adviser. Students electing speech communication as a minor in a teacher education program must include Speech Communication 431.



## Courses

Courses in speech communication are listed according to numerical order. However, the second digit in the course number indicates its locus in the speech communication curriculum, as follows:

- 00-09 Research Methods
- 10-19 Rhetoric and Criticism
- 20-29 Public Speech Communication
- 30-39 Speech Education
- 40-49 Language Behavior
- 50-59 Political Speech Communication
- 60-69 Interpersonal Speech Communication
- 70-79 Oral Interpretation
- 80-89 Organizational Speech Communication
- 90-99 Applied and Special Studies

**100- Speech Communication Workshop.** A workshop in debate, oral interpretation, or public speaking for secondary school seniors interested in intensive study in one or more of these areas.

**221-3 Advanced Public Speaking.** The components of effective speech with actual preparation and presentation of several types of speeches. Prerequisite: GE-D 153 or consent of instructor.

**230-3 Introduction to Speech Communication Theory.** Introduction to speech communication theory. Examination of history and theoretical issues as a basis for understanding applied communication areas.

**258-1 to 30 Work Experience.** Credit given for work experience by students enrolled in the Department of Speech Communication. Such credit is granted upon approval of the undergraduate adviser.

**261-3 Small Group Communication.** Introduction to small group communication and the small group process. Special emphasis given to problem-solving discussion groups.

**262-3 Interpersonal Communication II.** Focuses on face-to-face interaction and intergroup relations by combining information about human communication and practice in communication. Utilizes the laboratory method for learning to establish and develop communicative relationship with others. Prerequisite: GE-D 152 or consent of instructor.

**280-3 Business and Professional Communication.** A survey of communication theory pertaining to business and professional settings. Provides practice applicable to interviews, conference briefings, and presentation techniques. Prerequisite: GE-D 152 or 153.

**281-3 Introduction to Public Relations.** Philosophies and principles of agency, business, governmental, and nonprofit public relations. Historical perspectives, current and future trends, and career opportunities explored.

**310-3 Speech Composition.** Rhetorical techniques of public address. Two major speeches prepared, with every possible refinement. Prerequisite: 221.

**325-3 Argumentation and Debate.** Through the study of argument, evidence, reasoning, and oral advocacy this course seeks to ensure competence in the ascertainment of truth by investigation and research and the establishment of truth through proof. The ultimate rationale for the course is the discovery and support of intelligent decisions. Prerequisite: 221, or 280, or GE-D 153, or consent of instructor.

**326-3 Persuasion.** The means of influencing individuals and groups through communication. Emphasizes the shaping of other's values, beliefs, attitudes and behavior primarily by the spoken word. Provides theoretical information about and practice in persuasive speaking, for sources and targets of persuasion.

**340-3 Introduction to Language Acquisition.** Interdisciplinary approaches to the interaction between language acquisition and communication development. Topics include nonverbal communication, phonology, syntax, semantics, and pragmatics. Provides a background for those working with young children.

**341-3 Introduction to Intercultural Communication.** (Same as Linguistics 341.) Examination of the elements and structure of intercultural and transracial communication in the United States. Designed to analyze and describe the interaction between social perception and expression as manifest in verbal and nonverbal behavior. Emphasis on the functional communication of minority groups. Prerequisite: 262 or GE-D 152 or consent of instructor.

**358-3 Political Campaigns and Elections.** (See Political Science 318.)

**361-3 Nonverbal Communication.** Nonverbal factors that influence the communicative interaction among persons. Review research findings and conduct projects germane to nonverbal communication. Readings, discussions, and research projects. Prerequisite: 262 or consent of instructor.

**362-3 Communication and Social Process.** Introduction to the phenomenology of human communication and social process. Analysis and description of interpersonal communication in the

development and operation of human communities. Special emphasis is given to the nature of persons, consciousness, and communication exchange in society.

**363-3 Analytic Creative Communication.** Releasing creativity as creative interchange in persons and social relations, by analyzing and removing basic obstructions to beliefs, attitudes, desires, and habits, with increasing freedom to communicate creatively.

**364-3 Synergetic Creative Communication.** Releasing creativity as creative interchange in persons and social relations, by relating synergetically the analyzed fragments of knowledge for a creative lifestyle, with increasing freedom to communicate creatively.

**370-3 Oral Interpretation II.** Theory and practice in advanced interpretation techniques, with emphasis on the student as performer. Prerequisite: GE-C 200 or consent of the instructor.

**371-3 Storytelling and the Oral Tradition.** Theory and practice in the art of storytelling with emphasis upon practical application, source materials, and historical and ethnic backgrounds.

**381-3 Public Relations in Practice.** Application of public theory and principles through training and practice in the development of public relations production skills including message construction and delivery, verbal, nonverbal, and visual production work and special events components. Prerequisite: 281 and passage of language skills examination.

**382-3 Research Methods in Public Communication.** An introductory survey of methods and techniques of audience analysis and public opinion research. Designed especially for public relations specialization. Instruction in the design of research tools, sample selection, interviewing, and the use of the computer for data analysis.

**383-3 Interviewers and Interviewing.** Planning, conducting, and analyzing interviews with emphasis on roles of interviewer and respondent in professional and organizational communication settings. Study of factors affecting accuracy, openness, and goal attainment in use of interview methods for evaluation and research. Individual and small group projects with selected aspects of interviewing. Prerequisite: 262 or 280 or consent of instructor.

**390-1 to 6 Applied Communication.** Supervised individual and group performance in various communication arts. Emphasis on the practical application of verbal skills. May be repeated for credit. A maximum of six hours may be counted toward a speech major; a maximum of six hours toward degree requirements. Prerequisite: consent of instructor and department adviser.

**401-3 Communication Theories and Models.** An introduction to theory construction and model utilization in communication research. Critical analysis of existing communication theories in the social science as a basis for generating new models. Emphasis on the heuristic nature and function of the language/speech act paradigm in communication studies.

**411-3 Rhetorical Criticism.** Designed to develop the student's ability to criticize public discourse, including speeches, written works, and the mass media.

**421-3 to 9 (3, 3, 3) Studies in Public Address.** Critical studies of speakers and issues relevant to social and political movements dominants in national and international affairs. A lecture, reading, and discussion course. Students may repeat enrollment to a total of nine hours. Prerequisite: for undergraduates, 411 or consent of instructor.

**430-3 Speech in Elementary Schools.** Survey of normal speech development with emphasis on the elementary school years. Concept of speech as skill basic to reading, writing, and spelling. Psychological and sociological variables affecting language as it relates to school learning. Speech experiences supportive of the child's linguistic, intellectual, and social development.

**431-3 Speech in Secondary School.** Philosophy of speech education, and effective teaching of speech through curricular and extra-curricular work. Prerequisite: twelve hours of speech.

**432-3 Secondary School Forensic Program.** Designed to evaluate and plan the proper role of forensics in the secondary school and to prepare the students for their tasks as teachers and administrators in that program. Students enrolled as majors in speech communication with a specialization in communication education must complete this course before enrolling for student teaching. Not for graduate credit. Prerequisite: 325, GE-C 200.

**433-3 Children's Literature in Performance.** Study of children's fiction and poetry through analysis, creative drama, and performance, including solo and group work.

**435-3 to 6 (3, 3) Topics in Creative Drama.** An exploration of advanced theories and techniques for conducting sessions in informal drama. Topics vary and are announced in advance. Students may repeat enrollment in the course, since the topics change. Lecture, discussion, class projects, school visitations.

**440-3 Language Behavior.** Study of linguistic approaches to speech communication based on behavioral determinants such as culture, history, speech community, value orientations, social perception and expression, and the nature and function of interpersonal transaction. Prerequisite: 340 or consent of instructor.

**441-3 Intercultural Communication.** Application of semiotic and cultural theories to language behavior. Emphasis on speech communication as an approach to the study of intercultural communication. Prerequisite: 341 or consent of instructor.

**442-3 Psychology of Human Communication.** Nature, development, and functions of verbal and nonverbal behavior; application of psychology theories and research to the communication process in individuals and groups. Emphasis on the systemic nature of communicative behavior.

**443-3 General Semantics.** Formulations from the works of Alfred Korzybski and from neo-Korzybskian interpreters are presented. General semantics is discussed as an interdisciplinary approach to knowledge. Relationships are made to contemporary problems in human affairs.



**444-3 Studies in Language Acquisition.** Research in and theories of the development of verbal and nonverbal language with attention to the maturational process. Includes investigation of social, phonological, syntactical, and semantic correlates of communication development. Appropriate for advanced students interested in working with or conducting research involving children.

**446-4 Sociology of Language and Signs.** (See Sociology 451.)

**451-3 Political Communication.** (Same as Political Science 418.) A critical review of theory and research which relate to the influence of communication variables on political values, attitudes, and behavior. Prerequisite: 358 or consent of instructor.

**452-3 Interpersonal Communication and the Mass Media.** A review, synthesis, and analysis of communication theory and research which deals with the process, interactive nature of interpersonal, and mass channels of communication. Prerequisite: 401 or consent of instructor.

**460-3 Small Group Communication: Theory and Research.** A critical examination of small group theory and research in speech communication. Emphasis is given to the development of principles of effective communication and decision-making in the small, task-oriented groups. Prerequisite: 261 or consent of instructor.

**461-3 Laboratory in Interpersonal Communication I.** Interpersonal communication is studied as human encounter: the philosophy and theoretical bases of existential phenomenological approaches to human communication are discussed. Projects are evolved by small groups that contribute to the understanding of human communication.

**462-3 Laboratory in Interpersonal Communications II.** Various theories of social and cultural change are explored. The role of interpersonal communication in the development of human consciousness is explicated. Projects are evolved by small groups that examine values and priorities of human nature and cultural nature.

**465-3 Philosophy of Language.** (See Philosophy 425.)

**471-3 Prose Fiction in Performance.** Study of prose fiction through analysis and individual performance. Prerequisite: 370 or consent of instructor.

**472-3 Poetry in Performance.** The study of poetic form through analysis and performance. Prerequisite: 370, GE-C 200 or consent of instructor.

**474-3 Staging Literature.** Theory and practice of staging literature in the lyric mode with emphasis on adapting and directing. Prerequisite: 370 or consent of instructor.

**475-3 Narrative Theatre.** Theory and practice of staging narrative literature with emphasis on adapting and directing. Prerequisite: 471 or 474 or consent of instructor.

**476-3 Writing as Performance.** An examination of the practical and theoretical links between composition and performance. Lectures, reading, and assignments focus on performance as a means and an end to creative writing.

**480-3 Dynamics of Organizational Communication.** Introduction to interrelationships of communicative behavioral and attitudes with organizational policies, structures, outcomes. Uses case studies and role-plays to teach principles. Individual research into selected aspects of organizational communication. Prerequisite: 280, 442, or consent of instructor.

**481-3 Public Relations Cases and Campaigns.** Advanced course in public relations case analysis and campaign planning. Students critique public relations campaigns created by various profit, nonprofit, and agency organizations. Students also design public relations campaigns from problem identification through evaluation stages. Prerequisite: 381 and 382.

**483-3 Studies in Organizational Communication.** Study of communication systems and behaviors within organizations. Consideration of relevance of communication to management operations, employee morale, networks, superior-subordinate relations, production, and organizational climates. Individual research into selected aspects of organizational communication. Prerequisite: 480 or consent of instructor.

**490-1 to 6 Communication Practicum.** A supervised experience using communication skills. Emphasis on the development of performance skills in the following areas: (a) Communication studies. (b) Performance activity. (c) Interpersonal communication. (d) Debate and forensic activity. (e) Political communication. (f) Organizational communication. (g) Instructional communication. May be repeated for credit. Undergraduates limited to a total of six hours and graduate students to three to be counted toward degree requirements.

**491-1 to 3 Independent Study in Communication.** Readings, creative projects, or writing projects focusing on a theoretical study of communication. The independent study should normally be completed in one semester under the tutorial supervision of a faculty sponsor. Not for graduate credit. Prerequisite: twelve hours of speech, consent of instructor and departmental adviser.

**492-2 to 8 Workshop in Oral Interpretation.** Summer offering concentrating in specialized areas of oral interpretation.

**493-3 to 9 (3, 3, 3) Special Topics in Communication.** An exploration of selected current topics in communication arts and studies. Topics vary and are announced in advance; both students and faculty suggest ideas. Students may repeat enrollment in the course, as the topic varies.

**494-1 to 6 Internship in Public Relations.** A supervised experience using public relations skills in a professional or career setting. Maximum of six hours to be counted toward degree requirements. Not for graduate credit. Prerequisite: consent of instructor. Mandatory Pass/Fail.

**501-3 Introduction to Speech Communication Research.**

**502-3 Seminar: Quantitative Communication Research.**

**503-3 Seminar: Phenomenological Communication Research.**

510-3 to 6 (3, 3) Seminar: Rhetoric and Communication.  
 526-3 Seminar: Studies in Persuasion.  
 531-3 Seminar: Speech Education.  
 539-3 Speech Communication at University Level.  
 540-3 Seminar: Language, Culture and Semiology.  
 545-3 Seminar: Semiology and Semiotic Communication.  
 546-3 Conversation Analysis.  
 551-3 Phenomenology Seminar I: French Communicology.  
 552-3 Phenomenology Seminar II: German Communicology.  
 561-3 to 6 (3, 3) Studies in Small Group Communication.  
 562-3 Philosophy of Human Communication.  
 563-3 Studies in Interpersonal Communication.  
 571-3 Theory and Criticism in Interpretation: Pre-Twentieth Century.  
 572-3 Theory and Criticism in Interpretation: Twentieth Century.  
 573-3 Performance Criticism.  
 574-3 to 6 (3, 3) Studies in Interpretation.  
 580-3 to 9 Issues in Organizational Communication and Public Relations.  
 593-1 to 3 Research Problems in Communication.  
 595-1 to 3 Research Report.  
 598-0 Proseminar in Human Communication.  
 599-1 to 6 Thesis.  
 600-1 to 36 (1 to 16 per semester) Dissertation.  
 601-1 to 12 per semester Continuing Research.

## Speech Pathology and Audiology

(SEE COMMUNICATION DISORDERS AND SCIENCES)

## Technical Careers (School, Courses)

The School of Technical Careers offers the Associate in Applied Science and the Bachelor of Science degrees. The degree programs are listed alphabetically in this chapter. Requirements for admission and program completion vary and are stated within the description for each program.

Associate in Applied Science degrees are available in a variety of technical programs ranging from aviation maintenance to tool and manufacturing technology. Third-year specializations are available in certain program areas to further the student's technical knowledge.

The Bachelor of Science degree is designed to provide technically-oriented programs of study which are made up of both management and advanced technical course work. Details of each major area of study are listed under Advanced Technical Studies, Interior Design, or Consumer Economics and Family Management.

The following general education and technically-related courses are taught within the School of Technical Careers. They serve as common requirements for various majors. Some of the courses are also available to students enrolled in other academic units.

### Courses

**100-3 Introduction to Technical Careers.** Designed to introduce prospective clientele to careers in technical fields and in specific to the School of Technical Careers with a focus on career decision making, selective admission procedures, course and licensure requirements, and career placement and mobility.

**101-3 Business Correspondence.** Principles and practice in written and oral communication. Includes development of ability to use words; application of correct grammatical construction in oral and written communiques; analysis, planning, and practice of composing different types of internal and external communications in various administrative and business contexts; refinement of listing skills; mechanics and basic procedures for dictation; and ability to conduct a business meeting. Course will help form good habits that will facilitate adaptability in the world of work. Lecture and individualized instruction three hours.



**102-2 Technical Writing.** To successfully complete this course, student should be proficient in particular writing techniques (technical description, definition, classification, abstracting, etc.) and follow through a library or field research project in their individual technical fields. Lecture and individualized instruction. Prerequisite: GE-D 101.

**103-2 Fundamentals of Mathematics.** This course is pre-technical level intended for those who have had no high school algebra or whose scores on the School of Technical Careers Mathematics Placement Test indicate a need for it. The course will enable the student to perform the fundamental operations with integers, common fractions, and decimals; to solve problems involving ratio, proportion, and percent; to use measurement concepts and geometric formulas to compute areas, volumes, and perimeters; and to perform basic algebraic operations. Semi-programmed instruction. Four hours per week.

**105-4 (2, 2) Technical Mathematics.** Will enable the student to solve problems within the context of engineering technologies. (a) Emphasizes the use of algebraic equations and geometric relationships and formulas, and right triangle trigonometry. Lecture-discussion, four hours per week for eight weeks. Prerequisite: one year of high school algebra or equivalent. (b) Emphasizes the application of trigonometric relationships to problems in applied technologies, and contains additional topics in algebra including linear systems, quadratic equations, and exponential and logarithmic functions. Lecture-discussion, four hours per week for eight weeks. Prerequisite: 105a or equivalent. The use of an electronic calculator with scientific functions is required for both (a) and (b).

**107-4 (2, 2) Applied Physics.** Places emphasis on basic and applied physics at a level consistent with technical education objectives. The student will learn laws and principles and solve problems pertaining to (a) mechanics and the structure of matter, (b) heat and electricity. Lecture-discussion four hours per week. Prerequisite: 105a or equivalent.

**108-2 Chemistry of Fuels and Lubricants.** The student will demonstrate the ability to analyze fuels and lubricants and detect impurities and contaminants. (Lecture two hours, Laboratory three hours. Eight weeks.)

**110-1 Career Enhancement Study Skills.** A course designed for all individualized learning students. An introduction to the state-of-art and basic principles and theories used for developing positive study skills, motivational learning, and evaluation techniques. Topics include note-taking, test-taking, writing skills, and learning how one learns.

**115-5 (2, 3) Introduction to Chemistry.** (a) Inorganic. The student will study the structure of matter, including a survey of common elements and compounds and the changes during chemical reactions, and will also study inorganic bases, salts, solutions, the periodic tables, equation balancing, and metric tables. (Lecture three hours. Laboratory two hours. Eight weeks.) (b) Biological. The student will study the chemistry of organic compounds, carbohydrates, proteins, and lipids relating them specifically to body functions. The student will also study the chemistry of digestion, metabolism, respiration, blood enzymes, hormones, and vitamins. (Lecture four hours. Laboratory three hours. Eight weeks.) Must be taken in a, b sequence.

**118-2 Applied Calculus.** Upon successful completion of this course, the student will be able to find derivatives and integrals of algebraic expressions, and will use this working knowledge of calculus as a tool to solve technical problems in the mechanical, civil, and electrical-electronic fields; to converse intelligently with engineers and scientists who speak the language of calculus; and to read technical articles written in that language. Lecture-discussion two hours. Prerequisite: 105 or Mathematics 111.

**120-3 Fiscal Aspects of Technical Careers I.** An individualized program of instruction designed to acquaint students enrolled in the various technical programs of the School of Technical Careers with applications and procedures common to their area of specialization. Students will be able to demonstrate a basic working knowledge of the standard documents and procedures related to their specific area through the use of business working papers and practice sets. Open only to students in the School of Technical Careers. Lecture three hours.

**153A-2 Oral Reporting.** Successful completion of this course equips the student to construct and execute effective informative oral communications, recognize and use basic methods of logical organization, making a logical and coherent oral progress report, and take a more positive role in the world of business and industry. Lecture and individualized instruction, four hours per week. Eight weeks.

**153B-2 Conference Methods.** Upon successful completion of this course, the student will be able to identify and use basic problem solving methods, take a positive role in a typical business conference, and effectively manage the mechanics of dyadic and public oral communications within the typical business framework. Lecture, individualized instruction, and special projects, four hours per week. Eight weeks.

**199-1 to 10 Individual Study.** Provides first-year students with the opportunity to develop a special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairperson.

**210-4 (2, 2) Job Orientation and Analysis.** (a) Special instructional sessions offered on personality, clothing, job application, and professional ethics. Preparation of a portfolio consisting of a

personal data sheet, an analysis of prospective employing firms, sample letters of application, and an acceptance or refusal. Practice in being interviewed by representatives of business and industry. (b) Students will be required to discover their interests in career opportunities, to explore these fields, and to discover job opportunities in their interest areas. Lecture four hours. Need not be taken in sequence.

**215-6 (3, 3) Drafting Graphics.** Use of drafting instruments, development of lettering and line-work; geometric construction, orthographic projections, sections, reflected plans, pictorial drawings, perspective, shades and shadows, and their adaption to print reading and production. (a) Instruments, lettering, linework, geometric construction, orthographic projections, sections, reflected plans, shades and shadows, non-perspective pictorial drawings. One hour lecture, five hours lab. Taken concurrently with Interior Design 231. (b) Perspective drawing methods, both interior and exterior with emphasis on interior perspectives including Klok Board, direct measurement, Lockard freehand perspective, geometric relationships, and shades and shadows and reflections in perspective drawings. One hour lecture, five hours laboratory. Must be taken in a, b sequence.

**220-3 Fiscal Aspects of Technical Careers II.** A continuation of 120 for selected curriculum areas. Emphasis on continued development of knowledge and skills typically involved in small business management, ownership, partnerships, and corporations. New areas of study will include automated data processing, cost estimating, and payroll tax procedures through the use of business working papers and a practice set. Prerequisite: 120.

**258-1 to 30 Work Experience Credit.** Credit granted for job skills, management-worker relations and supervisory experience for past work experience while employed in industry, business, the professions, or service occupations. Credit will be established by departmental evaluation.

**259-1 to 60 Occupational Education Credit.** A designation for credit granted for past occupational educational experiences related to the student's educational objectives. Credit will be established by departmental evaluation.

**299-1 to 16 Individual Study.** Provides students with opportunity to develop a special program of studies to fit a particular need not met by other offerings. Enrollment provides access to the resources and facilities of the entire institution. Each student will work under the supervision of a sponsoring staff member. Prerequisite: approval of the sponsor, program supervisor, and division chairperson is required.

**415-3 On Dying and Death.** Students will study the process of death, grief, and bereavement. Emphasis on the practical aspects of coping with the many problems concerning death. Not for graduate credit.

## Technology (Department)

Two degree programs are available in technology. One program leads to the Bachelor of Science degree with a major in engineering technology (see Engineering Technology) with specialization in one of three areas: civil engineering technology, electrical engineering technology, or mechanical engineering technology. The other program leads to the Bachelor of Science degree with a major in industrial technology (see Industrial Technology) with specialization in one of two areas: manufacturing technology or mining technology.

Engineering technology courses contain topics related to the design and development of products. Industrial technology courses contain topics related to the manufacture and distribution of products.

The present technological society has increased the demand for new types of personnel known as technologists. A technologist utilizes established methods to achieve improvements in existing designs and systems. Technologists should be knowledgeable in the state of the art of a particular technology, capable of utilizing handbooks and other forms of codified information with skill and discrimination, and sufficiently versed in mathematics and science to recognize sound procedures.

The technology programs are flexible enough to provide the means whereby a graduate of a two-year occupational program can obtain a bachelor's degree in a minimum length of time. The industrial technology program provides credit to individuals for related work experience outside the institution.

The programs are designed to provide the necessary training for entry into em-



ployment upon the completion of the baccalaureate degree. Opportunities for advanced study are available in business-related fields or in education.

## Theater (Department, Major, Courses)

The Department of Theater blends scholarship and practice into an academically based theater experience preparing the student for a career in professional, educational, or community theater, as well as establishing a solid academic foundation for many complementary fields. The extensive production schedule in two theaters – a proscenium house, the McLeod Theater, seating about 500 and a flexible Laboratory Theater seating about 100 – provides training in all aspects of theater, augmented by courses in acting, voice, movement, directing, playwriting, design, and technical theater. Courses in theater history, dramatic theory and criticism, and specialized courses such as children’s theater and theater management complement the program. The production schedule is extensive enough to allow students the opportunity to design sets, lights, costumes, and to write, act, and direct for these productions. Seminars in international and ethnic theater and drama coordinated with ongoing research projects and visits of artists-in-residence enhance the total experience.

In addition to the General Education requirements, all theater majors must complete a theater core curriculum of 27 semester hours and the requirements in one of these specializations listed below, comprised of theater courses and selected courses in other schools and departments. Majors must earn a minimum of 12 hours in 400-level theater courses beyond the theater core. A grade of C or better is required in all courses to be counted as part of the theater core. Although a minor is not required, the student may consider complementary minor fields such as art, clothing and textiles, computer science, dance, English, foreign languages, history, journalism, music, philosophy, psychology, recreation, sociology, and speech communication.

Theater course credit earned at other institutions of higher learning, not used for General Education requirements at the time of transfer, can be applied to the Bachelor of Arts degree program with the approval of the faculty of the Department of Theater.

<b>Bachelor of Arts Degree, College of Communications and Fine Arts</b>	
<i>General Education Requirements</i> . . . . .	45
Must include GE-C 103.	
<i>Requirements for Major in Theater</i> . . . . .	75
Theater Core Curriculum . . . . .	27
Theater 205 . . . . .	2
Theater 218a . . . . .	3
Theater 218b or c . . . . .	3
Theater 217 . . . . .	3
Theater 300 . . . . .	4
Theater 311a . . . . .	3
Theater 354a, b . . . . .	6
Theater 402a . . . . .	3
Theater Specialization (Requirements listed below) . . . . .	48
<i>Total</i> . . . . .	120
THEATER MAJOR – ACTING-DIRECTING SPECIALIZATION	
Theater 317a, b, 417a . . . . .	9
Theater 213a, b . . . . .	6

Theater 203a, b .....	6
Theater 403a .....	2
Theater 402b (Required for students whose primary interest is directing) . . .	3
Electives .....	22-25

*Total* ..... 48

Qualified students in the acting-directing specialization may take an additional course of speech study (Theater 403b) or acting (Theater 417b) or movement (413a, b) with the consent of the instructor. Students whose primary interest is directing are urged to take Theater 207 and 407a.

#### THEATER MAJOR – DESIGN-TECHNICAL SPECIALIZATION

Theater 218b or c .....	3
Theater 207, 307, 407a .....	8
Theater 414a .....	3
Theater 418 .....	3
Art (by advisement) .....	6
Theater electives .....	13
Electives .....	12
<i>Total</i> .....	48

#### THEATER MAJOR – PLAYWRITING-DRAMATIC LITERATURE SPECIALIZATION

Theater 311b, 411a, 411b .....	9
Theater 402b .....	3
English 460, 462, 464, 465 (select one) .....	3
English 468 .....	3
Radio and Television 300M or Cinema and Photography 452 .....	3
Theater electives .....	15
Electives .....	12
<i>Total</i> .....	48

### Minor

*Requirements for Minor in Theater* ..... 15

A minor in theater consists of Theater 311a, with GE-C 103 as a pre-requisite, plus any combination of theater courses to reach a total of 15 semester hours.

### Courses

**203-6 (3, 3) Voice and Diction.** (a) Voice Production. Basic training in control of breathing, vocal tone, resonance, and vocal power for the beginning actor. (b) Diction. Consonant and vowel production; pronunciation for the actor. Prerequisite: 203a.

**205-2 Stage Make-up.** Theory and technique of various types of make-up. Supplies, at least \$25 per semester.

**207-2 Drafting for the Theater.** Development of the student's skill in scenographic techniques including ground plans, section, elevations, and detail construction drawings.

**213-6 (3, 3) Stage Movement.** Fundamentals of movement for the performer. (a) Body awareness/assessment; increasing control and exploring basic elements of movement. (b) Applications of basic elements to characterization. Elementary combat techniques and use of props and costume will be introduced. Must be taken in a, b sequence.

**217-3 Acting.** Preparing the actor's instrument through Stanislavskian technique; concentration/relaxation exercises; improvisations. The course objective is the discovery and development of the actor's inner resources. Contemporary American plays are studied from the actor's point of view. Readings are selected from the work of Stanislavsky, Boleslavsky, and Michael Chekhov. A final scene is chosen from the genre of American realism.

**218-9 (3, 3, 3) Beginning Stagecraft.** (a) Fundamentals of scenic construction and stage rigging and fundamentals of stage lighting including basic tools, equipment, hanging, focusing, and maintenance and basic techniques of constructing and handling stage costume. (b) Basic investigation of stage lighting design, theory, and professional practice. Special attention will be focused on color theory and its application to stage lighting. (c) Basic techniques of constructing and handling stage costume.



**260-1 to 15 Internship.** Off-campus internship which is related to the major program but not part of a regular instructional course. Written reports are required of student and supervisor. Prerequisite: theater major; written proposals must be approved by undergraduate adviser and curriculum committee prior to internship. Mandatory Pass/Fail.

**300-1 to 4 (1 per semester) Theater Practicum.** Offers students an opportunity to increase their skills in stagecraft, stage lighting, and costumes by working on department productions. Prerequisite: 218a, b, or c.

**307-3 Scene Painting.** Studio work in lining, paneling, trompe l'oeil ornament, and drapery. Prerequisite: 207, 218a, Art 110.

**311A-3 Play Analysis.** Development of basic skills in play analysis and application of these skills to a variety of dramatic forms through class discussions and written assignments. Prerequisite: GE-C 103 or one course in dramatic literature.

**311B-3 to 6 Playwriting Workshop for Actors.** Practical experience in acting in original plays combined with class discussions and critiques. Actors attend class sessions as well as rehearsals and have their work progressively evaluated. Six credit hours are awarded for the more intensive workshop sessions in the summer while three credits are available during the academic year. Workshop productions are staged in cooperation with 511. Prerequisite: audition.

**317-6 (3, 3) Intermediate Acting.** (a) Continuation of the actor's development of inner resources with emphasis on characterization. Mask and body center exercises; characterization through costume, props, music. Discussion of the techniques of outstanding actors. Prerequisite: 217. (b) Preliminary scene study. Emphasis on American realism. Extended scenes rehearsed and performed. Written character analyses required. Prerequisite: 203a, 213a, 317a.

**318-3 Advanced Stagecraft.** Advanced study of the principles and procedures of scenic construction and stage rigging. Includes fundamentals of scene shop organization, materials, and specialized stage equipment. Three hours lecture and laboratory to be arranged. Prerequisite: 218a, b, and 307.

**322-1 to 12 SIU Summer Theater.** Practical experience in summer stock play production. A maximum of twelve credit hours may be accumulated for performance or technical work in SIU Summer Theater only. Open to majors or non-majors. Prerequisite: audition or consent of instructor.

**323-1 to 6 Practicum for Non-Majors.** Practical experience in non-performing production areas for non-majors. Up to six hours may be taken at one time. This course may not be applied to a major in theater. Prerequisite: audition or consent of instructor.

**354-6 (3, 3) History of the Theater.** (a) Theater history from primitive times through the 17th century. (b) Theater history from the 18th century to the present.

**390-1 to 6 Independent Study.** Independent work on selected problems in academic or blend of academic and creative research. A maximum of three hours may be taken for a single project and a cumulative maximum of six hours may count toward the degree. Prerequisite: majors only; written proposals; consent of undergraduate adviser and instructor.

**400-1 to 6 (1 to 2 per semester) Production.** Practicum for support of major department productions in all areas. Roles in department productions may fulfill requirement.

**402-6 (3, 3) Play Directing.** (a) Introduction to directing. The history of the director; the evolution of the director into a position of predominance in modern theater hierarchy. The function of the director; and examination of theoretical viewpoint. Textual analysis; establishing the groundwork for the director's approach to production. Prerequisite: junior standing; 217 and 311a; or consent of instructor. (b) The principles of play direction including play selection, analysis and patterning of auditory and visual elements of production. Directing of a one-act play. Prerequisite: consent of instructor.

**403-4 (2, 2) Advanced Theater Speech Studies.** (a) Standard stage speech. Advanced training in vocal variety and flexibility. Expanded work with phonetics and application to play readings, poetry, etc. Prerequisite: 203b for undergraduates, no prerequisite for Master of Fine Arts acting students. (b) Vocal characterization. Applications of standard speech to characterization, verse plays, etc. Includes an approach to common American dialects. Prerequisite: 403a.

**404-3 Theater Management.** Discussion of legal and financial aspects concerning the professional and community theaters of the United States. Consideration of and practice in managerial activities of an educational theater including administration, purchasing, and accounting practices, direct sales, publicity, promotion, and public relations.

**407-6 (3, 3) Scene Design.** (a) Scene Design I. Technical and artistic aspects of scene design. Theory and practice. Supplies at least \$25 per semester. Prerequisite: 207, 218 a,b, 300, 354a,b, Art 110, or graduate standing. (b) Scene Design II. Sceneography as a dynamic force in theater and related media. Supplies at least \$25 per semester. Prerequisite: 407a.

**408-3 Model Making.** The craft of scenic model making for the stage and other dramatic media. Prerequisite: 407 or consent of instructor.

**410-3 Children's Theater.** Study of methods and their practical application of introducing children to theater and theatrical productions as an art form. Includes the writing of a short play for children. Recommended for majors in education programs.

**411A-3 Playwriting – The One-Act Play.** Principles of dramatic construction and practice in the writing of two one-act plays. Problems of adaptation are treated. Individual plays have the opportunity to be produced in the theater's program for new plays. Prerequisite: one course in dra-

matic literature for non-majors and graduates; 311a for undergraduate theater and speech communication majors; or consent of instructor.

**411B-3 Playwriting – The Full-Length Play.** Principles of dramatic construction and practice in the writing of a full-length play, encompassing such varied types as the children's play, the musical, the outdoor historical drama, etc. In special cases, students may elect to write three short plays. Prerequisite: 411A or consent of instructor for non-majors; 311a for undergraduate theater majors.

**413-4 (2, 2) Advanced Stage Movement.** (a) Special movement problems encountered by the actor; falls, combat, mime, working with costumes, props, music. Continued work in characterization and movement skills mastery. Prerequisite: 213a, b for undergraduates; no prerequisite for Master of Fine Arts students. (b) Period styles of movement; bows, curtsies, postures, and dances. Research and practical applications. Prerequisite: 413a.

**414-6 (3, 3) Costume Design.** (a) History of western costume from Greek to Renaissance and its adaptation to stage use. Theory and principles of theatrical costuming. Application of principles of design and color. Designs for single scenes. Elective Pass/Fail. (b) History of costume. Renaissance through 19th century. Style, fantasy, and the comic in costume design. Principles of dramatic theory and criticism as applied to costume design. Evaluation of research tools. Methods and procedures in designing costumes for a complete show. Prerequisite: 414a.

**417-6 (3, 3) Advanced Acting.** (a) Advanced scene study. Scenes from the Poetic Realists. Emphasis is on the ability to build and sustain a character. Audition technique is explored. Prerequisite: 317b or consent of instructor. (b) Elizabethan style. Scenes and soliloquies from the plays of Shakespeare, Marlowe, Jonson. Fencing and stage combat applied to scene work. Prerequisite: 417a or consent of instructor.

**418-3 Advanced Stage Lighting.** Investigation of stage lighting design, theory, and professional practice. Special attention will be focused on color theory and its application to stage lighting. Three hours lecture and laboratory to be arranged. Prerequisite: 218a, b, c, or consent of instructor.

**454-3 American Theater.** The development of American theater from colonial times to the present. Includes a study of the American musical theater from preminstrels through contemporary music-drama.

**489-3 to 6 Theater-Television Workshop.** Advanced work in the producing, acting, writing or original television drama. Prerequisite: C grade in Radio-Television 300M, 300P and consent of instructor for radio-television majors; consent of instructor for theater and other majors.

**500-2 Introduction to Research Methods.**

**501-3 Contemporary Developments.**

**502-3 Advanced Directing.**

**503-4 (2, 2) Graduate Theater Speech Studies.**

**504-3 The Comic Theater.**

**505-3 The Tragic Theater.**

**511-3 to 6 Playwriting Workshop.**

**513-4 (2, 2) Stage Movement for Graduate Actors.**

**517-6 (3, 3) Graduate Acting Studio.**

**522-1 to 12 SIU Summer Theater.**

**526-3 to 12 (3 per topic) Seminar in Theater Arts.**

**530-1 to 12 Independent Study.**

**550-2 to 6 (2 per topic) Topical Seminar.**

**599-1 to 6 Thesis.**

**600-1 to 36 (1 to 16 per semester) Dissertation.**

**601-1 to 12 per semester Continuing Research.**

## Thermal and Environmental Engineering

(SEE ENGINEERING)

## Tool and Manufacturing Technology

(Program, Major, Courses)

Graduates of tool and manufacturing technology machine tool (numerical control) specialization, will have the technical background to assist engineers in research, development, and testing. They will also have skills in metal cutting enabling them to follow through on jobs requiring the abilities of a tool maker.

The tool design specialization provides the in-depth training required to develop drafting skills as well as the ability to design certain types of production tooling. The blend of basic machining skills in combination with concentrated drafting



and design skills provide the graduate with the technical background required to enter the manufacturing industry as qualified tool design technicians.

For those students whose career objectives are directed to the areas of welding and fabrication, the metal fabrication and processes specialization provides an opportunity to blend basic machining skills with welding and fabrication skills in addition to developing the technical background necessary to assist engineers in research, development, and testing.

The tool and manufacturing curriculum is designed to accept students without previous experience. Those students entering with industrial experience, or special courses which were taken during military training, will be given course credit. Transfer students from community colleges will be accepted and given credit for course work where it is applicable. Graduates of recognized area vocational centers or private vocational schools will be given an opportunity to qualify for advanced placement and proficiency credit.

Upon completion of the tool and manufacturing program, students readily obtain positions in the areas of engineering technicians testing components and materials, pilot model makers, tool and die work, mold making, supervisors of numerical control production lines, programmers, process planners, certified welders, iron workers, draftsmen and tool designers. With additional on-the-job experience, many graduates of tool and manufacturing technology enter into supervisory positions.

The tool and manufacturing curriculum fits between the areas occupied by the mechanical and manufacturing engineer and the skilled technician. It includes theory, procedures, techniques, and skills from each of these areas and falls approximately halfway between.

Students in this program will have the advantage of courses in data processing that will give them the ability to work with computer-assisted programming for numerical controlled machines. They will learn to design and test industrial, hydraulic, and pneumatic power circuits; to read blueprints, design basic jigs and fixtures, make shop sketches, and alter existing machines for structural changes; and to build basic progressive dies, draw dies, die casting dies, and plastic injection mold dies; fabricate and repair machinery and equipment; select proper materials and heat treat tool steels, perform sophisticated welding operations; develop process planning sequences.

Students in tool and manufacturing technology should expect to spend about \$150 for instruments, tools, and supplies.

Representatives of industry serve on an advisory committee which helps to keep the program responsive to the needs in the field. Current members are: Ed Marshall, General Electric Co., Carbondale; Fred Meyers, Southern Illinois University at Carbondale; Edward Paulich, Norge Division, Herrin; Sue Soderstrom, Turco Manufacturing Company, DuQuoin; Charles Stallings, Mt. Vernon High School, Mt. Vernon; Wayne Wilmore, Old Ben Coal Co., Benton.

The associate degree program can be completed in two academic years at Southern Illinois University at Carbondale or in combination with community college or other acceptable extra-institutional educational experience.

Associate in Applied Science Degree, School of Technical Careers

TOOL AND MANUFACTURING TECHNOLOGY MAJOR –	
MACHINE TOOL (NUMERICAL CONTROL) SPECIALIZATION	
GE-D 101 .....	3
Social science elective .....	3
Communication elective (speech or technical report writing) .....	2-3
School of Technical Careers 105a, b, 107a, b .....	8
Tool and Manufacturing Technology 101, 102, 125, 126, 128, 185, 186, 208, 210, 211, 220, 221, 225, 275, 276 .....	60
Total .....	76-77

TOOL AND MANUFACTURING TECHNOLOGY MAJOR –  
METAL FABRICATION AND PROCESSES SPECIALIZATION

GE-D 101 .....	3
Social science elective .....	3
Communication elective (speech or technical report writing) .....	2-3
School of Technical Careers 105a, b, 107a, b .....	8
Tool and Manufacturing Technology 101, 102, 125, 126, 128, 180, 181, 182, 183, 185, 225, 275, 276, 310 .....	55
<i>Total</i> .....	71-72

TOOL AND MANUFACTURING TECHNOLOGY MAJOR –  
TOOL DESIGN SPECIALIZATION

GE-D 101 .....	3
Social science elective .....	3
Communication elective (speech or technical report writing) .....	2-3
School of Technical Careers 105a,b; 107a,b .....	8
Tool and Manufacturing Technology 101, 102, 125, 126, 128, 185, 186, 208, 225, 230, 231, 240, 241, 275, 276. ....	60
<i>Total</i> .....	76-77

## Courses

**101-1 to 7 Basic Tool and Manufacturing Laboratory.** The student will perform the basic operations covering the drill press, engine lathe, shaper, and basic bench work operations involving layout and hand tools. The operation of the shaper as a unit production machine is covered. Laboratory five to fifteen hours. Student will pay shop supply charge of \$1.50 per semester hours.

**102-1 to 7 Milling Machine and Grinding Laboratory.** The student will demonstrate ability to set up and operate the various milling machines and grinding machines common to the tool room and manufacturing operations. Laboratory five to fifteen hours. Student will pay shop supply charge of \$1.50 per semester hour. Prerequisite: 101 or consent of instructor.

**125-1 to 3 Introduction to Machine Tools.** The student will demonstrate knowledge of the basic machine tool operations; also, bench and hand tool techniques. Lecture one to three hours.

**126-1 to 3 Machinability of Metals, Milling, and Abrasive Machining.** Students will demonstrate ability to select correct cutting speeds, feeds, and tool geometry for various alloy steels and to understand the relationship of the factors involved. They will be required to understand the various tool room and production milling machine and grinders; their construction, set-up, and operations. Lecture one to three hours. Prerequisite: 125 or consent of instructor.

**128-2 Hydraulic and Pneumatic Controls.** The student will be required to understand industrial fluid power and its application in industry. The student designs, tests, and implements hydraulic and pneumatic circuits that are applicable to industry. Lecture one hour. Laboratory two hours.

**180-3 Oxy-Acetylene and Elementary Arc Welding Procedures.** Includes theory and practice of oxy-acetylene fusion welding, cutting, hard soldering, and introductory shielded metal arc welding with emphasis on flat and horizontal positions. Students will pay materials charge in the amount of \$1.50 per credit hour. Lecture one hour. Laboratory four hours.

**181-3 Intermediate Arc Welding and Elementary Inert Gas Welding.** Includes theory and practice of intermediate shielded metal arc welding with emphasis on vertical and overhead positions and an introduction to gas tungsten arc, gas metal arc, cored wire welding, and arc/air cutting procedures. Students will pay materials charge in the amount of \$1.50 per credit hour. Lecture one hour. Laboratory four hours.

**182-3 Advanced Shielded Metal Arc Welding Procedures.** Includes theory and practice of gas, tungsten arc, gas metal arc, cored wire welding. Major emphasis will be placed on the preparation of weld specimens for destructive testing and subsequent analysis of the weldment. Student will pay materials charge in the amount of \$1.50 per credit hour. Lecture one hour. Laboratory four hours. Prerequisite: 181 or consent of instructor.

**183-2 Welding Blueprint Reading.** Emphasizes the basic fundamentals of drawing interpretation as applied to welding and metal fabrication. The student will be expected to develop a core of blueprint reading skills in addition to a thorough familiarization of welding symbols and their significance. Through individualized instruction, students will progress at their own rate until course requirements have been satisfied as certified by the supervising faculty member.

**185-4 Technical Drawing I.** Upon completion of this course, the student should be able to read and sketch pictorial and multiview drawings which include auxiliary views, sectional views, assemblies, weldments, up-to-date types of precision dimensioning, and many types of fasteners and machine elements. Lecture two hours. Laboratory three hours.

**186-4 Technical Drawing II.** Upon completion of this course the student should be able to read



more complex drawings, use drawing instruments and geometric constructions where accuracy of layout is important, and design and draw simple jigs and fixtures. Lecture two hours. Laboratory three hours. Prerequisite: 185 or consent of instructor.

**208-4 Numerical Control Programming.** Principles involved in controlling machine tool motions by computer. Emphasis on applications of the microcomputer to numerical control, programming, and tool path simulation. Lecture two hours. Laboratory three hours. Prerequisite: 102 or consent of department.

**210-1 to 7 Numerical Control, Electrical Discharge Machining, and Tool and Die.** The student will demonstrate ability to set-up and operate the numerically controlled milling machine for production jobs; to set-up and operate the electrical discharge machine on die and mold making applications; and to build progressive compound and forming dies. Laboratory five to fifteen hours. Student will pay shop supply charge of \$2.00 per semester hour. Prerequisite: 102 or consent of instructor.

**211-1 to 7 Advanced Numerical Control, Tool and Die, and Production Machining.** Students will demonstrate ability to set-up and operate advanced production jobs on the turret lathe, tracer lathe, and numerically controlled milling machines. They will build progressive dies and mold dies. Laboratory five to fifteen hours. Student will pay shop charges of \$2.00 per credit hour. Prerequisite: 210 or consent of instructor.

**220-1 to 3 Numerical Control, Inspection Practices, and Electrical Discharge.** The student will demonstrate ability to program for typical industrial jobs using point to point programming, to understand the E.D.M. process and to select proper machine settings for a given application, and to understand inspection practices and precision measuring procedures. Lecture one to three hours. Prerequisite: 126 or consent of instructor.

**221-1 to 3 Tool and Die, Production Machining, and Process Planning.** The student will demonstrate ability to process plan and run cost estimates on typical production jobs; to understand basic die design and components in relation to progressive compound and forming dies, and to understand production processes. Lecture one to three hours. Student will pay shop supply charges of \$2.00 per credit hour. Prerequisite: 220 or consent of instructor.

**225-2 Manufacturing Processes.** A study of the techniques required to coordinate a diverse variety of manufacturing processes into the making of acceptable products. Special emphasis will be made on the role of the technician in the choice and application of selected processes. Lecture two hours. Prerequisite: 221 or consent of department.

**230-2 to 7 Tool Design I.** Tool design practices with emphasis on jigs, fixtures, and gages. Students will develop concepts and prepare working drawings of production tooling with particular emphasis on manufacturing sequence, quality control, and utilization of standard components. Laboratory 3 to 10 hours. Material and supply cost \$.75 per credit hour. Prerequisite: 186 or consent of instructor.

**231-2 to 7 Tool Design II.** Die design practices with emphasis on blanking, piercing, compound, and forming dies. Students will develop design concepts and prepare working drawings of dies in accordance with die design standards and utilization of standardized die components. Laboratory 3 to 10 hours. Material and supply cost \$.75 per credit hour. Prerequisite: 230 or consent of instructor.

**240-3 Fundamentals of Jig, Fixture and Gage Design.** A study of the principles involved in developing appropriate tool design concepts. Such factors as processing sequence, clamping techniques, locating devices, and dimensional tolerances will be studied with appropriate considerations given to such factors as tool costs, quantity production, machine selection and operator safety. Lecture three hours. Prerequisite: 186 or consent of instructor.

**241-3 Fundamentals of Die Design.** A study of the principles involved in the use and design of dies used for the fabrication of sheet metal parts in punch press. Emphasis will be on blanking, piercing, compound, and forming dies. Such factors as drafting room standards, die design standards, punch press capacity, and the use of standardized and interchangeable components will be studied in keeping with desirable levels of manufacturing costs and product quality. Lecture three hours. Prerequisite: 240 or consent of instructor.

**275-2 Ferrous Metallurgy.** The student will demonstrate understanding in the theory of alloys, characteristics of metals, simple phase diagrams and basic heat treating practices. Lecture two hours.

**276-2 Tool Steel Metallurgy.** Students will demonstrate ability to apply heat treating procedures with tool steel common to industrial uses. They must also be able to select the proper steel for the design criteria. Lecture one hour. Laboratory two hours. Prerequisite: 275 or consent of instructor.

**310-6 to 24 Certified Welder Training.** Students may choose a concentrated area of work such as pipe welding, boilermaking welding, or structural steel welding. Upon completion of this course students will pass the ASME code requirements in the welding area chosen. They may choose any one or all of the following processes; oxyacetylene, metallic arc, tungsten inert gas, metallic inert gas, and cored wire welding. Through individualized instruction students will progress at their own rate and may complete instruction at any time depending upon individual progress. Certified papers will be completed by the School of Technical Careers and will be given to the student or forwarded to an employer. Student will pay shop supply charge of \$1.50 per semester hour. Prerequisite: completion of formal welding program or equivalent work experience.

**320-1 to 12 (1 to 4 per topic) Advanced Tool and Manufacturing Studies.** Provides students

with an opportunity for advanced studies in their areas of interest in tool and manufacturing technology. Emphasis will be on literature search and advanced technical skills development in the student's areas of specialization. (a) Machine tool, i.e., numerical control programming, advanced diemaking, process planning, machinability studies. (b) Metal fabrication, i.e., design of welded structures, metallurgical aspects of welding, welding quality control procedures. (c) Tool design, i.e., plastic mold design, interchangeable die components, tooling for automatic processes. Students will develop written project objectives with the assistance of a sponsoring faculty member and submit a final paper detailing the semester's activities. Shop and supply charges to be individually determined and specified in project objectives. Credit to be individually arranged based on the nature and complexity of the project. Prerequisite: associate degree in tool and manufacturing technology or consent of instructor.

## Uncommon Languages (Minor)

(SEE LINGUISTICS)

## University Honors Program (Courses)

**111-1 Freshman Honors Colloquium.** Open to freshmen. Prerequisite: consent of the director of honors opportunities.

**201-1 to 9 Honors Seminar.** Undergraduate honors seminar. Topics vary and will be announced by the University Honors Program each time the course is offered. Prerequisite: consent of the director of honors opportunities.

**251a-1 to 8 Honors Seminar in the Sciences.** Seminars in the area of the natural sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Education Area A. Prerequisite: consent of the director of honors opportunities.

**251b-1 to 8 Honors Seminar in the Social Sciences.** Seminars in the area of the social sciences intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Education Area B. Prerequisite: consent of the director of honors opportunities.

**251c-1 to 8 Honors Seminar in the Humanities or the Arts.** Seminars in the area of the humanities or the arts intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Education Area C. Prerequisite: consent of the director of honors opportunities.

**251d-1 to 6 Honors Seminar in Language or Mathematics.** Seminars in the area of the organization and communication of ideas, intended primarily for freshmen. These seminars may be used to satisfy a part of the requirement for General Education Area D. Prerequisite: consent of the director of honors opportunities.

**251e-1 to 4 Honors Seminar in Health and Physical Education.** Seminars in the area of health and physical education, intended primarily for freshmen. These seminars may be used to satisfy the requirement for General Education Area E. Prerequisite: consent of the director of honors opportunities.

**299-1 to 15 Honors Project.** Preparation of honors paper or comparable project under joint supervision of University Honors Program and a faculty member of subject-matter department. Intended primarily for freshmen and sophomores. Prerequisite: consent of the director of honors opportunities.

**301-1 to 9 Honors Seminar.** Undergraduate honors seminar. Topics vary and will be announced by the University Honors Program each time the course is offered. Prerequisite: consent of the director of honors opportunities.

**351a-1 to 9 Honors Seminar in the Sciences.** Seminars in the area of the natural sciences. These seminars may be used to satisfy the requirement for General Education Area A. Prerequisite: consent of the director of honors opportunities.

**351b-1 to 9 Honors Seminar in the Social Sciences.** Seminars in the area of social sciences. These seminars may be used to satisfy the requirement for General Education Area B. Prerequisite: consent of the director of honors opportunities.

**351c-1 to 9 Honors Seminar in the Humanities or the Arts.** Seminars in the area of the humanities or the arts. These seminars may be used to satisfy the requirement for General Education Area C. Prerequisite: consent of the director of honors opportunities.

**351d-1 to 6 Honors Seminar in Language or Mathematics.** Seminars in the area of the organization and communication of ideas. These seminars may be used to satisfy the requirement for General Education Area D. Prerequisite: consent of the director of honor opportunities.

**351e-1 to 4 Honors Seminar in Health and Physical Education.** Seminars in the area of health and physical education. These seminars may be used to satisfy the requirement for General Education Area E. Prerequisite: consent of the director of honors opportunities.

**399-1 to 15 Honors Project.** Preparation of honors paper or comparable project under joint supervision of University Honors Program and a faculty member of a subject-matter department. Prerequisite: consent of department and the director of honors opportunities.



**499-3 to 9 Undergraduate Honor Thesis.** Preparation of honors thesis under supervision of a committee consisting of one or more faculty members in appropriate disciplines and a representative of the University Honors Program.

University Studies (Program)

The University Studies program allows the eligible student to design a multidisciplinary, interdisciplinary, or general program of study leading to a Bachelor of Science or Bachelor of Arts degree. The Bachelor of Arts degree is granted to the graduate who has completed at least one full year of foreign language on the college level; the Bachelor of Science degree is granted to the graduate who has not completed a year of foreign language.

In order to be formally admitted to work toward a degree in University Studies, the student must meet the following criteria:

- 1. The student must have no more than 90 semester hours passed.
- 2. The student must have completed at least one full year of college course work – a minimum of 24 semester hours – with a 2.25 grade point average or higher. (For entering transfer students, the 2.25 must be for all college work previously completed; for continuing SIUC students, the 2.25 must be for all Southern Illinois University at Carbondale work.)
- 3. The student must not have exceeded any of the limitations prescribed by the program.
- 4. The student must have the individual program plan approved by the program director.

There are few specific requirements for the degree in University Studies other than those requirements which are University-wide baccalaureate requirements. However, there are limitations on the selection of coursework to ensure that students pursue a program that matches their abilities, educational goals, and future aspirations.

Bachelor of Arts Degree

General Education Requirements . . . . .	45 <sup>1</sup>
Requirements for University Studies . . . . .	75 <sup>2</sup>
Foreign language . . . . .	(4)+4
300-400 level coursework . . . . .	40 <sup>1</sup>
Other courses as approved by the program director . . . . .	31
Total . . . . .	120

Bachelor of Science Degree

General Education Requirements . . . . .	45 <sup>1</sup>
Requirements for University Studies . . . . .	75 <sup>2</sup>
300-400 level coursework . . . . .	40 <sup>1</sup>
Other courses as approved by the program director . . . . .	35
Total . . . . .	120

<sup>1</sup>The student must have a minimum grade point average of 2.00 for the 40 semester hours of 300-400 level coursework. General Education courses at the 300-level count toward both the General Education requirements and toward the requirement of 40 semester hours at the 300-400 level.

<sup>2</sup>There are two limitations placed on course distribution:

- a. The student may take no more than 40 semester hours in any academic unit *excluding* the basic 45 semester hours required in General Education – with the exception of the College of Liberal Arts where no more than 27 semester hours in the Social Sciences (excluding the nine semester hours required in Area B) and no more than 27 semester hours in the Humanities (excluding the nine semester hours required in Area C and excluding English Composition) may be taken.
- b. The student may take no more than 20 semester hours in a department (or in a School within a College). General Education courses are to be included in the total *except* for the basic 45 semester hours required.

In other words, *any* General Education courses taken in addition to the minimum requirements are counted both toward the academic unit limits allowed and toward the department limits allowed.

# University (Courses)

## Courses

**100-0 Learning Skills.** Designed to provide students with the learning skills necessary to pursue college level work. Those learning skills include attitude toward university studying, setting goals, time management, classroom note taking, textbook study techniques, library skills, concentration, mnemonic techniques, and speed reading. Enrollment dependent on placement test results. Mandatory Pass/Fail.

# Vocational Education Studies (Department, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in elementary schools, secondary schools, colleges, military, and industry in several areas of vocational and pre-vocational education. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of occupational subject areas including agriculture, business, career education, health, home economics, public service, and trades and industries. Several majors and specializations are offered. Qualified students may be accepted into the Capstone program with majors in agricultural education, business education, home economics education, and occupational education. The Capstone program is explained in Chapter 3.

## AGRICULTURAL EDUCATION (Major)

In this program a student will receive the technical and professional training needed to teach agricultural occupations in secondary schools, serve in extension, or be employed in industry. A student majoring in agricultural education may specialize in one of the following areas: agricultural production, agricultural supplies and services, agricultural mechanics, agricultural products, ornamental horticulture, agricultural resources, forestry, and other areas of agriculture in specially designed curricula. Students who wish to obtain joint certification in agricultural education and special education must complete that specialization. The Capstone program is available to qualified majors in agricultural education. The Capstone program is explained in Chapter 3.

## Bachelor of Science Degree, College of Education or School of Agriculture

### AGRICULTURAL EDUCATION MAJOR – SECONDARY TEACHING CERTIFICATE

<i>General Education Requirements</i> .....	45
GE-A 106, 115.....	6
GE-B 212 and 202.....	6
GE-D 101, 107, 118, 153 .....	11
GE-E 201 and two hours of physical activity courses.....	4
<i>Requirements for Majors in Agricultural Education</i> .....	40
Agribusiness Economics.....	3
Agricultural mechanization courses.....	3
Agricultural Education and Mechanization 311a, b <sup>1</sup> and one of the following: 364, 411, 414 .....	9
Animal Industries.....	3
Plant and Soil Science .....	3
Specialty in Agriculture and agriculture electives.....	19



Professional Education Requirements .....	25
See Teacher Education Program, page 83.	
Electives .....	10
Total .....	120

<sup>1</sup>Agricultural Education and Mechanization 412 may be substituted for 311b.

**Agricultural Education Major – Joint Certification in Agricultural Education and Special Education**

A request has been made to the State Board of Education for approval for joint certification in agricultural education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic adviser.

General Education Requirements .....	45
GE-A 106, 115 .....	6
GE-B 212 or 301 and 202 .....	6
GE-D 101, 107, 118, 153 .....	11
GE-E 201 and two hours of physical activity courses .....	4
Requirements for Majors in Agricultural Education .....	40
Agribusiness Economics .....	3
Agricultural mechanization courses .....	3
Agricultural Education and Mechanization 311a, b <sup>1</sup> and one of the following: 364, 411, 414 .....	9
Animal Industries .....	3
Plant and Soil Science .....	3
Specialty in Agriculture and agriculture electives .....	19
Requirements in Special Education .....	23-24
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Educational Psychology 412 or Psychology 431 .....	
Professional Education Requirements .....	31
Must include eight hours of student teaching in agricultural education and eight hours in special education.	
See Teacher Education Program, page 83.	
Total .....	139-140

<sup>1</sup>Agricultural Education and Mechanization 412 may be substituted for 311b.

**BUSINESS EDUCATION (Major)**

The business education major offers specializations to prepare persons for teaching, supervisory, and leadership roles in secondary schools, private business schools, colleges, and industry in the areas of vocational and pre-vocational business education, and in-service training. Students selecting the secondary certification option may select one of the following teaching areas: office, accountancy, data processing, general business/consumer education, and marketing. Students who wish to obtain joint certification in business education and special education must complete that specialization. Those selecting the non-certification specialization may select from these areas: office, accounting, data processing, marketing, and management. The Capstone program, explained in Chapter 3, is available to qualified majors in business education. Business education majors

may take no more than 25% of their program in courses in business administration.

**Bachelor of Science Degree, College of Education**

**BUSINESS EDUCATION MAJOR – SECONDARY TEACHING CERTIFICATE**

<i>General Education Requirements</i> . . . . .	45
Including GE-B 202, 211 or Economics 214, 212 or 301, GE-D 101, 117, 118, or 119, and one additional English course, GE-E 201, 2 hours of physical education activity courses	
<i>Requirements for Majors in Business Education</i> . . . . .	50
Accounting 210 or 220 . . . . .	3
Management 170 or 304 . . . . .	3
Secretarial and Office Specialties 101a . . . . .	3
Vocational Education Studies 302, 306, 310, 411, 498b . . . . .	13
Preparation in one of the following business teaching areas:	
Accounting	
Vocational Education Studies 412	
Accounting 230, 240, 321, 322, 341	
Computer Information Processing 329 or Computer Science 212	
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements	
Data Processing	
Vocational Education Studies 412	
Computer Information Processing 102, 131	
Three of the following: Computer Information Processing 111, 121, 222, 232, 323, 329 or Computer Science 212	
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements	
General Business and Consumer Education	
Vocational Education Studies 418	
Management 350	
Marketing 304	
Economics 215	
Finance 280 or 370	
Consumer Economics and Family Management 341	
Plus either two supplemental teaching areas or one supplemental teaching area and completion of vocational program coordination requirements	
Marketing	
Vocational Education Studies 418	
Marketing 304, 305, 363, 438	
Finance 280 or 370	
Plus one supplemental teaching area and completion of vocational program coordination requirements	
Office	
Vocational Education Studies 404, 413	
Secretarial and Office Specialties 101d, 106, 107, 109, 230, 233	
Plus either three supplemental teaching areas or two supplemental teaching areas and completion of vocational program coordination requirements	
<i>Professional Education Requirements</i> . . . . .	25
See Teacher Education Program, page 83.	
<i>Total</i> . . . . .	120



Supplemental Teaching Areas in Business Education:

1. Accounting and Bookkeeping: Accounting 230, Vocational Education Studies 412.
2. Data Processing: Vocational Education Studies 412, Computer Information Processing 102, 131, one of the following: Computer Information Processing 111, 121, 222, 323, 329 or Computer Science 212.
3. General Business/Consumer Education: Vocational Education Studies 418 and two of the following: Consumer Economics and Family Management 340, 341, GE-B 205.
4. Business Law: Vocational Education Studies 418, Finance 280, 370.
5. Marketing: Vocational Education Studies 418, Marketing 304, 363, 438.
6. Shorthand and Transcription: Vocational Education Studies 304, 414.
7. Typewriting: Secretarial and Office Specialties 101d, Vocational Education Studies 413.

VOCATIONAL PROGRAM TEACHING REQUIREMENTS

Vocational Education Studies 472, and 473 plus the equivalent of one year of work experience form Vocational Education Studies 258 or 395.

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements, except Vocational Education Studies 412, 413, 414, and 418.

The city of Chicago has requirements that differ from those presented in this bulletin. Copies of these requirements may be obtained from the business education office, 133 Henry J. Rehn Hall.

BUSINESS EDUCATION MAJOR – JOINT CERTIFICATION IN BUSINESS EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in business education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education, without satisfying joint certification requirements. Interested students should see an academic adviser.

<i>General Education Requirements</i> .....	45
Including GE-B 202, 211 or Economics 214, 212 or 301, GE-D 101, 117, 118, or 119, and one additional English course, GE-E 201, 2 hours of physical education activity courses	
<i>Requirements for Majors in Business Education</i> .....	44
Accounting 210 or 220 .....	3
Management 170 or 304 .....	3
Vocational Education Studies 302, 306, 310, 411, 498b .....	13
Secretarial and Office Specialties 101a .....	3
Preparation in one of the following business teaching areas:	
Accounting	
Vocational Education Studies 412	
Accounting 230, 240, 321, 322, 341	
Computer Information Processing 329 or Computer Science 212	
Plus one supplemental teaching area.	
Data Processing	
Vocational Education Studies 412	
Computer Information Processing 102, 131	
Three of the following: Computer Information Processing 111, 121, 222, 232, 323, 329 or Computer Science 212	
Plus one supplemental teaching area.	
General Business and Consumer Education	
Vocational Education Studies 418	

Management 350	
Marketing 304	
Economics 215	
Finance 280 or 370	
Consumer Economics and Family Management 340, 341	
Plus one supplemental teaching area.	
Marketing	
Vocational Education Studies 418	
Marketing 304, 305, 363, 438	
Finance 280 or 370	
Plus completion of vocational program coordination requirements.	
Office	
Vocational Education Studies 404, 413	
Secretarial and Office Specialties 101d, 106, 107, 109, 230, 233	
Plus two supplemental teaching areas.	
<i>Requirements in Special Education</i> . . . . .	23-24
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Educational Psychology 412 or Psychology 431	
<i>Professional Education Requirements</i> . . . . .	31
Must include eight hours of student teaching in business education and eight hours in special education.	
See Teacher Education Program, page 83.	
<i>Total</i> . . . . .	143-144

BUSINESS EDUCATION MAJOR – NON-CERTIFICATION BUSINESS OCCUPATIONS TEACHING

<i>General Education Requirements</i> . . . . .	45
Including Economics 214 or GE-B 211	
<i>Requirements for Major in Business Education</i> . . . . .	75
Accounting 220 or 230 . . . . .	6
Management 304 . . . . .	3
Marketing 304 . . . . .	3
Economics 215 . . . . .	3
Finance 280 . . . . .	3
Secretarial and Office Specialties 101a . . . . .	3
Vocational Education Studies 302, 306, 310, 495b-6 or 496b-6 . . . . .	14
Vocational Education Studies 395, 460, 472, 473, 474, 484 . . . . .	20-28
Plus completion of courses in one of the following areas:	
Office	
Vocational Education Studies 402, 403, 404, 405, 407, 411, and 413	
Secretarial and Office Specialties 101d, 107, 230, 233	
Accounting	
Accounting 321, 322, 331, 341, 361 or 471	
Vocational Education Studies 411, 412	
Computer Information Processing 329 or Computer Science 212	
Data Processing	
Computer Information Processing 102, 131, 232, and three of the following: 111, 121, 222, 323, 329 or Computer Science 212	
Vocational Education Studies 411, 412	
Marketing	



Finance 370	
Marketing 363, 438, 401	
One 3-hour marketing elective	
Vocational Education Studies 411 and 418	
Management	
Management 341, 350, 385, 431	
Marketing 363	
Vocational Education Studies 411 and 418	
Total	120

Credit from Vocational Education Studies 258 or 259 may be used in lieu of the business education requirements.

Minor

A minor in business education consists of a minimum of 20 hours. Minors are planned for each student individually by the student and the adviser.

To meet Illinois Document I certification requirements for teaching, 24 semester hours are required.

CLOTHING AND TEXTILES (Major, Courses)

Students majoring in clothing and textiles may specialize in either apparel design or retailing. A double specialization is available for students with broader interests and goals, and a special major may be planned with approval of the program director. A minor in clothing and textiles is also available.

Bachelor of Science Degree, College of Education

CLOTHING AND TEXTILES MAJOR – APPAREL DESIGN SPECIALIZATION

This specialization is intended for the student interested in professional preparation in apparel design or allied design positions in either industrial or commercial fashion businesses. The courses available to the student cover textile information, fashion design, and skills required for developing original designs into patterns and completed garments. Courses in clothing and textiles are complemented by ones in art, business, and other areas in order to provide a suitable background for various career opportunities.

General Education Requirements	45
GE-A 106	3
GE-B 202, 211	6
GE-C 205	3
Requirements for Majors in Clothing and Textiles with Apparel Design Specialization	70
Vocational Education Studies 336, 337, 338-5, 340, 342, 343, 345, 346, 347, 348, 439 or 449, 440, 444, 446, 448	49
Art 100a, 110, 206 and art history	12
A statistics course approved by the department	3
Professional electives	6
Choose from the following: accounting, art, chemistry, clothing and textiles, finance, interior design, journalism, marketing, psychology, or other approved courses.	
Electives	5
Total	120

CLOTHING AND TEXTILES MAJOR – RETAILING SPECIALIZATION

This specialization prepares the student for a profession in retail stores, either as buyers or department managers. Other related retailing positions are also available to students who complete the retailing specialization. The courses available to the student cover textile information, fashion merchandising, marketing and other business-related courses.

<i>General Education Requirements</i> .....	45
GE-A 106.....	3
GE-B 202, 211.....	6
GE-C 205.....	3
<i>Requirements for Majors in Clothing and Textiles with Retailing Specialization</i> .....	70
Vocational Education Studies 336, 337, 341-3, 343, 345, 346, 347, 349, 442, 445 plus 3 additional hours.....	34
Art 100a.....	3
Accounting 210 or 220.....	3
Management 301 or 304 or Psychology 320 or 323.....	3
Computer Information Processing 329 or Computer Science 202 or 212.....	3
A statistics course approved by the department.....	3
Marketing 304, 363, 401 plus 3 additional hours.....	12
Professional electives.....	9
Choose from the following: chemistry, clothing and textiles, finance, interior design, journalism, accounting, marketing, psychology, or other approved courses.	
<i>Electives</i> .....	5
<i>Total</i> .....	120

CLOTHING AND TEXTILES MAJOR – DOUBLE SPECIALIZATION

This double specialization prepares the student for professional positions calling for either apparel design or retailing backgrounds, and the student will also be prepared to assume professional responsibilities calling for a blend of these, for example, a business which both designs apparel and sells it to the ultimate user.

<i>General Education Requirements</i> .....	45
GE-A 106.....	3
GE-B 202, 211.....	6
GE-C 205.....	3
<i>Requirements for Major in Clothing and Textiles with Double Specialization</i> .....	100
Vocational Education Studies 336, 337, 338-5, 340, 341-3, 342, 343, 344, 345, 346, 347, 348, 349, 439 or 449, 440, 442, 444, 445, 446, 448.....	64
Accounting 210 or 220.....	3
Management 301 or 304 or Psychology 320 or 323.....	3
Art 100a, 110, 206, and art history.....	12
A statistics course approved by the department.....	3
Computer Information Processing 329 or Computer Science 202 or 212.....	3
Marketing 304, 363, 401, plus 3 additional hours.....	12
<i>Total</i> .....	145



Minor

A minor in clothing and textiles is intended to provide background that will assist students in pursuing their career goals or other interests. A minor in clothing and textiles must have approval of the program coordinator. At least 16 hours of clothing and textiles courses are required as follows:

335 or 345 .....	2-4
336, 337, or 347.....	6
Other clothing and textiles courses.....	6-8

HOME ECONOMICS EDUCATION (Major, Courses)

Programs are designed to prepare home economics teachers and home economics extension advisers with various specializations. Both general home economics education and vocational home economics teachers are prepared. Three specializations are offered. Students who wish to obtain joint certification in home economics and special education must complete that specialization. The Capstone program is available to qualified majors in home economics education. The Capstone program is explained in Chapter 3.

Bachelor of Science Degree, College of Education

HOME ECONOMICS EDUCATION MAJOR – TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION

This program prepares students to teach consumer education, homemaking as an occupation, and occupational home economics in schools operating under the provisions of federal vocational education legislation.

<i>General Education Requirements.....</i>	45
Including GE-B 108, 202, 212 or 301; GE-C 101; GE-D 101, 117 or 118; 153, 107, GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Home Economics Education.....</i>	47
Chemistry 140a.....	(4)
Curriculum, Instruction and Media 227, 237, 318, 327, elective course-3.....	15
Vocational Education Studies 338a, 340, 345 .....	9
Consumer Economics and Family Management 320, 330, 331, 340 350, 351 .....	16
Food and Nutrition 156, 215, 335.....	7
<i>Professional Education Requirements.....</i>	33
See Teacher Education Program, page 83. ....	25
Vocational Education Studies 320, 322, 323 .....	8
<i>Total .....</i>	125

Credit from Vocational Education Studies 258 or 259 may be substituted for six semester hours in each of two areas (Child and Family, Clothing and Textiles, Consumer Economics and Family Management, Food and Nutrition) of the home economics requirements. There is no substitution for Curriculum, Instruction, and Media 227, 237, 327, Consumer Economics and Family Management 340.

HOME ECONOMICS EDUCATION MAJOR – TEACHING VOCATIONAL HOME ECONOMICS SPECIALIZATION – JOINT CERTIFICATION IN HOME ECONOMICS EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint

certification in home economics education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education without satisfying joint certification requirements. Interested students should see an academic adviser.

<i>General Education Requirements</i> .....	45
Including GE-B 108, 202, 212 or 301; GE-C 101; GE-D 101, 117 or 118; 153, 107, GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Home Economics Education</i> .....	33
Chemistry 140a .....	(4)
Curriculum, Instruction and Media 227, 237 .....	6
Consumer Economics and Family Management 331, 340, 350 .....	9
Food and Nutrition 156, 215, 335 .....	7
Vocational Education Studies 338a, 340, 431, 464 .....	11
<i>Requirements in Special Education</i> .....	23-24
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Educational Psychology 412 or Psychology 431	
<i>Professional Education Requirements</i> .....	39
Professional Education .....	31
Must include eight hours of student teaching in home economics education and eight hours in special education. See Teacher Education Program, page 83.	
Vocational Education Studies 320, 322, 323 .....	8
<i>Total</i> .....	140-141

#### HOME ECONOMICS EDUCATION MAJOR – EXTENSION SPECIALIZATION

This program prepares students for positions as home advisers, 4-H advisers, and with further training, extension specialists.

<i>General Education Requirements</i> .....	45
Including GE-B 108, 202, 212 or 301; GE-C 101; GE-D 101, 117 or 118; 153, 107, GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Home Economics Education</i> .....	71
Chemistry 140a,b .....	(4) + 4
Curriculum, Instruction and Media 227, 237, 317 .....	9
Consumer Economics and Family Management 320, 330, 331, 340, 350, 351 .....	16
Food and Nutrition 156, 215, 256, 335 .....	12
Vocational Education Studies 320, 324, 325, 336, 338A, 340, 345, 431 .....	24
Journalism 340 or substitute .....	3
Speech Communication 221 .....	3
<i>Electives</i> .....	4
<i>Total</i> .....	120

#### HOME ECONOMICS EDUCATION MAJOR – EDUCATIONAL SERVICES SPECIALIZATION

This program prepares students for positions in agencies and businesses which provide educational services. Such tasks as developing informational materials, working with individual customers or clients, coordinating conferences and demonstrating products might be included in the job description for such positions.

<i>General Education Requirements</i> .....	45
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Including GE-B 108, 202, 211 or 212; GE-C 101	
Requirements for Major in Home Economics Education .....	54
Curriculum, Instruction, and Media 227, 237 .....	6
Consumer Economics and Family Management 331, 350, 340 .....	9
Vocational Education Studies 320 or 119, 321, 338 or 340, 335 or 345, 384, 431, 497c .....	20
Restricted Electives .....	19
To be selected from the following:	
Vocational Education Studies 337, 340, 342, 343, 347	
Consumer Economics and Family Management 320, 330, 480	
Food and Nutrition 156, 256, 335, 356	
Vocational Education Studies 302, 398c, 433, 464, 474, 490c, 494c	
Electives .....	21
Total .....	120

OCCUPATIONAL EDUCATION (Major, Courses)

Programs are designed to prepare persons for teaching, supervisory, and leadership roles in schools, colleges, military, and industry. Students are made aware of and become knowledgeable about roles, relationships, and expertise in a variety of educational agencies and occupational subject areas. Six specializations are offered. Students who wish to obtain joint certification in occupational education with specialization in trades and industries and special education must complete that specialization.

Bachelor of Science Degree, College of Education

The Capstone program is available to qualified majors in occupational education. The Capstone program is explained in Chapter 3.

OCCUPATIONAL EDUCATION MAJOR –TRADES AND INDUSTRIES TEACHING SPECIALIZATION, OCCUPATIONAL EMPHASIS (SECONDARY TEACHING CERTIFICATE)

Trades and industries teaching concerns specialized instruction in a wide variety of vocational-technical occupations including industrial-oriented, and other occupations. In addition to being certificated to teach in secondary high schools or vocational schools, graduates may also teach in industry, private schools, and community junior colleges.

General Education Requirements. ....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
Requirements for Major in Occupational Education .....	41
Vocational Education Studies 395 <sup>1</sup> .....	16
Vocational Education Studies 258 and/or 259 .....	25
Professional Education Requirements .....	34
See Teacher Education Program, page 83. ....	25
Vocational Education Studies 460d, 462d, 466 .....	9
Total .....	120

OCCUPATIONAL EDUCATION MAJOR – TRADES AND INDUSTRIES TEACHING SPECIALIZATION, OCCUPATIONAL EMPHASIS – JOINT CERTIFICATION IN OCCUPATIONAL EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in occupational education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in

special education without satisfying joint certification requirements. Interested students should see an academic adviser.

<i>General Education Requirements</i> .....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i> .....	35
Vocational Education Studies 395d <sup>1</sup> .....	16
Vocational Education Studies 258 and/or 259 .....	19
<i>Requirements in Special Education</i> .....	23-24
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Educational Psychology 412 or Psychology 431	
<i>Professional Education Requirements</i> .....	31
Must include eight hours of student teaching in occupational education and eight hours in special education See Teacher Education Program, page 83.	
<i>Total</i> .....	134-135

OCCUPATIONAL EDUCATION MAJOR – OCCUPATIONAL TEACHING SPECIALIZATION  
(POST-SECONDARY TEACHING)

Occupational teaching involves instructing youth and adults in a highly skilled or technical area such as electronics, automotives, aviation, commercial art, cosmetology, or others, which require an advanced knowledge of applications in a defined line of endeavor.

<i>General Education Requirements</i> .....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i> .....	75
Vocational Education Studies 258, 259, 395 <sup>1</sup> , 460d, 462d, 466, 472, 495 .....	66
College of Education electives .....	9
To include 3 semester hours in courses outside the Department of Vocational Education Studies	
<i>Total</i> .....	120

OCCUPATIONAL EDUCATION MAJOR – HEALTH OCCUPATIONS TEACHING SPECIALIZATION –  
SECONDARY TEACHING CERTIFICATE

The health occupations teaching specialization (secondary teaching) prepares persons with allied health and nursing specialty backgrounds for teaching, supervisory, and leadership roles in health occupations education in secondary schools. In addition to receiving the secondary school certification, persons completing this program are qualified to teach in vocational schools, industry, private schools, and community colleges.

<i>General Education Requirements</i> .....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i> .....	41
Vocational Education Studies 395 <sup>1</sup> .....	16
Vocational Education Studies 258/259 .....	25



<i>Professional Education Requirements</i> .....	34
See Teacher Education Program, page 83. ....	25
Vocational Education Studies 460e, 462e, 466 .....	9
<i>Total</i> .....	120

OCCUPATIONAL EDUCATION MAJOR – HEALTH OCCUPATIONS TEACHING SPECIALIZATION –  
JOINT CERTIFICATION IN OCCUPATIONAL EDUCATION AND SPECIAL EDUCATION

A request has been made to the State Board of Education for approval for joint certification in occupational education and special education. A student may complete an emphasis in special education by completing from six to twelve hours in special education without satisfying joint certification requirements. Interested students should see an academic adviser.

<i>General Education Requirements</i> .....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i> .....	35
Vocational Education Studies 395e <sup>1</sup> .....	16
Vocational Education Studies 258/259 .....	19
<i>Requirements in Special Education</i> .....	23-24
Special Education 400, 401 or 402 or 404, 414, 417 or 418, 419, 430, Psychology 301, Educational Psychology 421 or Psychology 431	
<i>Professional Education Requirements</i> .....	40
Professional Education .....	31
Must include eight hours of student teaching in occupational education and eight hours in special education	
Vocational Education Studies 460e, 462e, 466 .....	9
See Teacher Education Program, page 83.	
<i>Total</i> .....	143-144

OCCUPATIONAL EDUCATION MAJOR – HEALTH OCCUPATIONS TEACHING SPECIALIZATION  
(POST-SECONDARY TEACHING)

The health occupations teaching specialization (post-secondary teaching) prepares persons for instructing in highly skilled and technical health occupations education such as dental hygiene, medical laboratory technology, preprofessional nursing programs, radiological technology, and others which require advanced knowledge or application in a defined health field. Persons completing the post-secondary health occupations teaching specialization are qualified to teach in community colleges, private schools, and industrial settings.

<i>General Education Requirements</i> .....	45
Including GE-A 101, 106; GE-B 212 or 301 and 202; GE-D 101, 117, 152, GE-D Mathematics; GE-E 201; 2 hours of physical education activity courses	
<i>Requirements for Major in Occupational Education</i> .....	75
Vocational Education Studies 395e, 460e, 466, 495e .....	26
Vocational Education Studies 258/259 .....	40
College of Education electives .....	9
To include three semester hours in courses outside the Department of Vocational Education Studies	
<i>Total</i> .....	120

<sup>1</sup>Students with two or more years of documented, appropriate work experience are not required to take 395.

## Courses

**119-1 Home Economics Careers.** An introduction to career opportunities in the broad fields of home economics and related occupations.

**257-1 to 30 Work Experience.** Credit for on-campus work experience through a cooperative program developed between the department and the Office of Student Work and Financial Assistance. Prerequisite: consent of program coordinator. Mandatory Pass/Fail.

**258-2 to 30 Occupational Experience.** Credit for documented experience in a teachable occupation or family of occupations. Prerequisite: 12 hours of C or better at Southern Illinois University at Carbondale.

**259-2 to 48 Occupational Subjects.** Credit for documented occupational study in accredited and selected other programs. Prerequisite: 12 hours of C or better at Southern Illinois University at Carbondale.

**302-3 Communications in Business.** Principles and practice in written and oral business communications. Included is the development of ability to use words and correct grammatical construction in oral and written business expression; the learning of the principles of planning, organizing, writing, and summarizing effective communications; and the refinement of listening skills.

**304-3 Analysis of Alternative Shorthand Systems.** Development of high-level dictation and transcription skills and knowledge in one shorthand system; the learning of the theory of one or more additional shorthand systems, either alphabetic or symbolic. Prerequisite: Secretarial and Office Specialties 102d or 103d or equivalent.

**306-3 Introduction to Data Processing.** Emphasis on operation of keypunch machine, vocabulary development, unit record equipment, concepts of programming, fundamentals of computer mathematics and applications, and flow charting.

**310-2 Introduction to Business Education.** An introduction to teaching business in public and private schools, and business/industry training. Emphasis is on curriculum structures, philosophical bases, student characteristics, employment requirements, and career opportunities.

**320-1 Home Economics as a Profession.** A social, psychological, and philosophical interpretation of home economics in today's world. Overview of career areas and the practice of the dual role of homemaker-professional worker.

**321-2 Methods of Teaching for Non-Teaching Majors.** Educational principles for use in situations mostly outside of the formal classroom. Selection and organization of materials. Practice in using a variety of techniques and teaching aids.

**322-4 Methods and Curriculum in Home Economics.** The total home economics program. Curriculum planning for the course and the unit. Teaching methods especially suitable for home economics classes. Teaching aids and materials. Evaluation of instruction. Managing the business of the department. Possible expense for materials for teaching experiences: \$5. Prerequisite: Basic professional block in education, eight semester hours.

**323-3 Introduction to Home Economics Related Occupational Programs.** Organization and operation of occupational home economics programs. Use of instructional materials. Supervised work experiences. Field trips. Prerequisite: Education 302.

**324-4 History, Development and Principles of Extension Work.** The history and philosophy of cooperative extension. Principles and practice of organizing and administering extension work in home economics. Offered alternate years. Transportation expense for field trips: approximately \$5.

**325-4 Field Experience.** Six weeks of observing and assisting a county home economics extension adviser. Supervised experiences in various phases of extension work. Student must provide for own living and travel expenses. Prerequisite: 324.

**326-2 Practicum-Home and Family Life Education.** Provides pre-service home economics teachers and home economics extension advisers experience in observing and working with families with respect to problems, needs, and values as a basis for more effective teaching.

**327-3 Home Economics for Men (and Women).** A survey of the areas of home economics; child care and personal, family, and community relations; economics and management of personal and family resources; food, nutrition, clothing selection and buying; financial management, consumer education; and protection. Emphasis on life skills as reflected in needs of students. Field trip and practicum experiences. Cost: \$2 for supplies.

**335-2 Basic Textiles.** Emphasis on recognition of fabrics and weaves, suitability, care, and maintenance, especially household textiles. Credit cannot be earned for 335 after receiving credit for 345.

**336-3 Survey of Clothing.** Multidisciplinary overview of study of clothing. Course will include aesthetic, cultural, economic, psychological, social, and anthropological aspects.

**337-3 Clothing for Consumers.** Clothing needs of individual family members within the context of developmental stage, life style, and societal setting; functional and fashion-motivated needs considered; clothing budgeting. Prerequisite: 336.

**338A-2 Clothing Construction - Beginning.** Basic clothing construction laboratory. Beginning skills: use of machine, fabric selection and preparation, pattern alteration, garment construction.



**338B-3 Clothing Construction – Intermediate.** Intermediate skills in fitting, construction, and pattern and fabric usage. Prerequisite: 338a.

**339-1 to 12 (1 to 6 per semester) Field Experience.** Supervised learning experience in approved business or industry. Intended for majors in clothing and textiles only. Prerequisite: consent of chairperson.

**340-3 Flat Patternmaking and Drafting.** Fitting basic tissue of muslin and making sloper; making styles through flat pattern manipulation and drafting; testing and refining patterns to provide perfect fit. Prerequisite: 338b.

**341-4 (1, 3, 1, 1) Fashion Retailing Seminar.** Comparison of practices drawn from students' work experiences and information from readings or resource persons. Individual and group projects. (a) Retail theft, (b) buying and buying procedures, (c) personnel, (d) introduction to visual merchandising, especially in-store and window display. Emphasis on artistic elements and motivational strategies of displays. Prerequisite: 100 hours approved retailing experience.

**342-3 Draping.** Application of design principles to dress; making garment form; refining patterns draped in muslin. Garments constructed of fashion fabric. Prerequisite: 340.

**343-3 Apparel Accessories.** Product knowledge, levels of quality, setting points, and care of plastics, leather goods, furs, jewelry, cosmetics.

**344-3 Fashion Illustration.** Original designs for male and female apparel and accessories using various media. Designs based on various sources of inspiration. Prerequisite: Art 110.

**345-4 Textiles.** Presentation of aspects of textiles having an influence on properties and performance of textile and products such as apparel and home furnishings. Characteristics of fibers, yarns, and fabrics will be discussed and other factors such as manufacturing methods of and legal constraints on the textile industry will be mentioned. Lecture and laboratory. Prerequisite: GE-A 106.

**346-3 Display and Exhibition Design.** Application of design principles and use of graphics in display. Studies in two- and three-dimensional display and exhibition; model-making techniques. Incidental expenses for supplies and materials.

**347-3 Fashion Motivation.** Psychological motivation for wearing clothing; societal functions of clothing, cultural differences in dress. Prerequisite: 336.

**348-3 Tailoring.** Basic principles of tailoring applied to coat or suit. Prerequisite: 338 or equivalent.

**349-3 Fashion Merchandising.** Functions and responsibilities of the fashion merchandiser, considering various retail establishments. Professional course for retailing majors. Prerequisite: 341 and Marketing 304.

**360-15 (3, 3, 3, 3, 3) Vocational, Occupational, and Career Simulation Clusters Studies.** Vocational, occupational, and careers simulation and gaming activities. Occupational orientation and exploration. Community laboratory films and other methods. Team teaching also used.

**362-3 Vocational, Occupational, and Career Orientation and Exploration.** Introduction to orientation and exploration activities for vocational, occupational, and career education programs at the junior high and early senior high school levels. Career development processes are examined.

**363-3 Career Education.** An examination of the historical, social, economic, and psychological foundations for career education. A typical career education curriculum model will be presented. Instructional materials and methods for facilitating career development will be demonstrated.

**364-3 Leadership of Youth and Peer Groups.** (Same as Agricultural Education and Mechanization 364.) Identification and discussion of the role of organizations, both structured and unstructured. Identification and development of qualities of leadership.

**366-4 Multi-Activity Laboratory.** Participation in designing instructional programs for multiple activity industrial arts laboratory or shops and performing the shop tasks. It includes such methods or approaches as project, exercises, mass production, enterprise, American industries, career orientation, world of construction, and others. Prerequisite: 15 hours shop or laboratory credits.

**368-3 Construction Methods for Primary Teachers.** Various media as wood, metal, and paper. Acquainting the primary teacher with the materials, tools, and processes which students at the primary level can manipulate and use in the classroom. Laboratory.

**370-3 Diversified Crafts for Teachers and Recreation Leaders.** Experience in constructional activities involving the use of wood, metals, leathers, plastics, reed, raffia, clay, and other materials adaptable to the needs and interests of camp counselors and elementary school leaders. Laboratory.

**384-3 Adult Education in Vocational, Occupational, and Career Education.** Planning and preparing for adult education programs. Includes review of characteristics of clientele, financial support, program development.

**395-1 to 24 Occupational Internship.** Special educational activities are based upon required occupational skills and knowledges and are related to each student's academic program and career objective. May include independent study. Hours and credit arranged by coordinator. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. Prerequisite: consent of coordinator and employment in a University-approved position.

**398-1 to 3 Special Problems.** Independent study for qualified students. (a) Agricultural educa-



tion. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. Prerequisite: consent of instructor.

**402-3 Introduction to Office Information Systems.** An introduction to the integrated office concept investigating the functions of data processing, records management, electronic mail, word processing, and reprographics.

**403-3 Microform Systems.** An introduction to the use of microforms in the management of information flow. Emphasis is placed on analysis of application, effectiveness, and cost of available microform systems, techniques, and equipment. Not for graduate credit.

**404-3 Analysis of Office Systems.** An investigation of procedures and systems used in various types of offices, including a study of work flow, the processing of words, office personnel and their responsibilities, and the role of office functions in the total business society.

**405-3 Office Management.** Principles of management applied to office problems. Emphasis on the role of the office in business management; office organization; physical facilities and layout of office; office services, procedures, standards, and controls; records management.

**407-3 Records Administration.** An introduction to methods and systems of controlling, storing, retrieving, and disposing of records. Application of principles of records administration to medical, legal, educational, industrial, and governmental records. Techniques needed to design and implement an operationally efficient records management program. Prerequisite: 403.

**410-2 Principles and Problems of Business Education.** A study of the fundamentals of business education; its relation to business, to general education, and to vocational and career education; its history, current status, and trends; special emphasis on objectives and curriculum problems.

**411-3 Curriculum and Methods in Business Education Instruction.** An introduction to curriculum materials and instructional methods used in the many content areas of business education. This course is the first of a sequence of specific business education instructional methods courses. Prerequisite: 310, major or minor in business education.

**412-2 Teaching Accounting and Data Processing.** Specific methods and techniques to teach in the business education areas of accounting and data processing. Prerequisite: 306, 411, Accounting 220 or School of Technical Careers 120.

**413-2 Teaching Keyboarding, Communication, and Office Systems.** Specific methods and techniques to teach in the business education areas of keyboarding, communications, and office systems and procedures. Prerequisite: 404, 411, Secretarial and Office Specialties 101d, or equivalent.

**414-2 Teaching Shorthand.** Specific methods and techniques to teach shorthand in a business education curriculum. Prerequisite: 304, 411, Secretarial and Office Specialties 102d, or equivalent.

**418-2 Teaching Basic Business, Consumer, and Marketing Education.** Specific methods and techniques to teach basic business, consumer, and marketing education in a business education curriculum. Prerequisite: 411, GE-B 205 or Marketing 304.

**428-3 Home Economics for Elementary Teachers.** Identification and development of meaningful home economics related experiences appropriate for various levels of elementary curriculum. Interpretation of current vocational education legislation and trends affecting elementary programs.

**431-3 Demonstration and Laboratory Techniques in Home Economics Education.** Practice in planning and carrying out instructional demonstrations in home economics for youth and adults. Use of audiovisual aids and hand-outs. Procedures for laboratory and guided practice to develop psychomotor skills. Attention given to TV presentations. Possible expense for materials to use in classroom demonstrations \$5 to \$8.

**433-3 Women and the Politics of Education.** Ways of organizing to implement legislation for social needs. How to have input into decisions which affect the educational community – reimbursement, grants, funding. The need, impact, and opportunity for careers in public service as these relate to individual, family, and societal needs. Field trips.

**439-3 Historic Clothing: Western Cultures.** Development of clothing in western civilization to the present time. Consideration of social, economic, and aesthetic factors, and technical innovations influencing clothing. Prerequisite: 347 or equivalent.

**440-3 Experimental Custom Apparel Designing.** Development of apparel to meet aesthetic, structural, and functional needs; problem solving for exceptional proportions, rehabilitation, activity, performing arts, new technology, materials, environment. Some patterns originated in 440 may be tailored following semester in 446. Prerequisite: 340 and 342 or equivalent.

**442-3 Clothing Economics.** Factors of production, distribution, and consumption influencing clothing industry; management of these factors in clothing related businesses; place of clothing industry in national and international markets. Field trip. Prerequisite: GE-B 211 or Economics 214.

**444-4 Mass-Market Apparel Designing.** Design of a line to specifications; drafting; toiles, mass-production costs; work flow; use of industrial equipment. Field trips. Prerequisite: 340 and 342 or equivalent.

**445-3 Textile Product Testing.** Exposure to and experience with methods used by retailers and manufacturers of textile items to measure performance and maintain quality. Standards, sampling, and replication requirements and interpretation of results. Prerequisite: 345 or equivalent.

**446-3 Professional Practices in Fashion Design.** Business principles of apparel design, in-



cluding systems, forms, and logistics of money and materials. Functions and responsibilities of the fashion designer. Career opportunities in the fashion industry. Not for graduate credit. Prerequisite: 340, 342, 344.

**448-3 Custom Tailoring.** Individualizing, fitting, and contouring of male or female garment for customer from commercial pattern or from original pattern. Organization of work and time. Not for graduate credit. Prerequisite: 348 or equivalent.

**449-3 Historic Clothing: Non-Western Cultures.** Traditional dress in non-western cultures. Aesthetics, symbolism, and uses of costume in the culture; effect of clothing on economy. Cultures studied may vary with each offering. Offered alternate years. Prerequisite: junior standing.

**450-3 Introduction to Health Occupations Education.** An orientation course for health occupations education. Provides information on the current and historical directions in health occupations education, resources for teaching and training of prospective students; program articulation and career mobility; the role of professional and student health organizations; state and federal legislation/regulations in health occupations education; licensure and certification requirements and their impact on education; and health occupations career clustering within Illinois' vocational system. Prerequisite: 460 and 462.

**460-3 Occupational Analysis and Curriculum Development.** The first of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational and occupational education. Includes analyzing occupations and jobs, specifying objectives, and developing curriculum. (b) Business education. (d) Industrial education. (e) Health occupations education.

**462-3 Teaching Methods and Materials.** The second of a two-course sequence presenting a systems approach to curriculum development and instructional methods utilized in vocational and occupational education. Concerned with instructional methods and materials unique to vocational and occupational education. (d) Industrial education. (e) Health occupations education.

**463-3 Assessing Vocational Student Progress.** Development and use of evaluation instruments to assess occupational student growth. Use of systems approach to course design, criterion-referenced and norm-referenced objectives, and four taxonomies of educational objectives in development of written tests, laboratory and work station performance tests, and attitude measures. Data are used for evaluation of student progress and program modification. Prerequisite: 460.

**464-3 Special Needs Learners and Work Education.** Theoretical and applied concepts in teaching special needs learners. Affective aspects of learning are emphasized. Curricula and teaching materials are examined and prepared. Field trips.

**466-3 Principles and Philosophies of Vocational Education.** Historical and philosophical foundations of vocational education. The nature and role of vocational education in preparing people for the world of work.

**468-3 Education/Labor Force Linkages.** Examines education/labor linkages. Particular attention given to the following areas: overcoming barriers to the linkage process; developing effective lines of communication; resource sharing; conducting joint problem solving with other agencies and individuals within the community; and jointly developing and providing programs and services.

**472-3 Organizing Cooperative Vocational Education.** Introduction to cooperative vocational education including history, rationale, legislative basis, and goals and objectives. Investigation into the competencies required for developing programs, public relations, and evaluation of cooperative vocational education. Introduction of student selection and management of cooperative vocational education. Fulfills three semester hours of six required for State of Illinois certification.

**473-3 Coordinating Cooperative Vocational Education.** Overview of cooperative vocational education. Investigation into the competencies required for the establishment, implementation, and coordination of cooperative vocational education to include selection and maintenance of training stations, student placement, related instruction in cooperative vocational education, and the management of cooperative vocational education programs. Fulfills the remaining three semester hours of the six required for State of Illinois certification. Prerequisite: 472.

**474-3 Individualized Vocational Instruction.** Study of the theory, characteristics, appropriateness, and evaluation techniques of individualized programs. Will include a review of the current state of individualized instruction in education for work programs.

**478-3 Contemporary Principles and Management of IA Programs.** Study of contemporary approaches to the teaching of industrial arts including objective philosophies, advantages, and disadvantages; shop or laboratory design and organization; and the management of programs in shops or laboratories. Not for graduate credit. Prerequisite: junior standing.

**484-3 Adult Vocational and Technical Education.** A study of adult vocational and technical education as offered in a variety of educational settings. Major topics include organization, funding, teaching, student characteristics, and evaluation. Prerequisite: consent of adviser.

**486-3 (1, 1, 1) Post-Secondary Vocational-Technical Teaching.** Contemporary approaches to teaching vocational-technical education in post-secondary institutions and agencies. (a) Orientation to and preparation for teaching occupations. (b) Situations and issues which arise in professional education sessions. (c) Interpersonal relations in teaching and other educational assignments. Not for graduate credit.

**488-3 Initiating Vocational Student Placement and Follow-Up.** Planning, implementing,



and evaluating a school-based placement system for secondary and post-secondary vocational, technical, and adult education students.

**489-3 Developing Vocational Student Placement and Follow-Up.** Developing and using internal and external resources in a functioning placement and follow-up program. Prerequisite: 488.

**490-1 to 4 Readings.** Supervised reading for qualified students. May include independent study. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. (f) Clothing and textiles. Prerequisite: consent of instructor and program coordinator.

**491-1 to 5 Advanced Occupational Skills.** Modern occupational practice in selected fields. For experienced professionals seeking advanced techniques in specialized areas of vocational education. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. Prerequisite: intermediate level study in the specialty.

**494-1 to 4 Workshop.** Study of current issues of importance to vocational, occupational, and career education teachers, supervisors, and administrators. Emphasis of each workshop will be identified in each workshop announcement. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. (f) Clothing and textiles.

**495-2 to 12 Teaching Internship.** Internship teaching in vocational programs in approved centers. The intern teacher will follow the program of the supervising teacher in both regular and extra class activities. May include independent study. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. Prerequisite: 18 months full-time equivalent of documented or nine months full-time equivalent of supervised experience or a combination.

**496-2 to 12 Professional Internship.** Research or curriculum development or program management at approved education or training sites. The intern will follow the program of the supervising professional in regular and related activities. Not for graduate credit. Prerequisite: 18 months full-time equivalent of documented or nine months full-time equivalent of supervised work experience or a combination.

**497-1 to 6 Practicum.** Applications of vocational, occupational, and career education skills and knowledge. Cooperative arrangements with corporations and professional agencies to study under specialists. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. (f) Clothing and textiles. Prerequisite: twenty hours in specialty.

**498-1 to 5 Special Problems.** Assistance and guidance in the investigation and solution of vocational, occupational, or career education problems. May include independent study. (a) Agricultural education. (b) Business education. (c) Home economics education. (d) Industrial education. (e) Health occupations education. (f) Clothing and textiles. Prerequisite: consent of instructor and program coordinator.

**510-3 Improvement of Instruction in Business Education.**

**518-3 Home Economics Programs in the Schools.**

**520-3 Trends and Issues in Home Economics Education.**

**521-3 Advanced Methods of Teaching Home Economics.**

**538-2 College Teaching of Clothing and Textiles.**

**547-3 Foundations of Fashion.**

**561-3 Research Methods.**

**562-3 Legislation and Organization.**

**564-3 Program Evaluation for Work Education.**

**566-3 Administration and Supervision.**

**568-3 Facilities Planning.**

**572-3 Trends and Issues in Cooperative Vocational Education.**

**574-3 Occupational Information.**

**576-6 (3, 3) Policy Implementation and Supervision.**

**578-3 Programs in Diverse Setting.**

**580-3 Characteristics of Clientele.**

**584-3 Curriculum Foundations for Work Education.**

**586-3 Adult Vocational Programs.**

**588-3 Performance-Based Professional Development.**

**590-1 to 9 Readings.**

**591-1 to 9 New Developments.**

**592-1 to 6 Recent Research.**

**593-1 to 3 Individual Research.**

**594-3 Advanced Research Methods.**

**595-1 to 16 Professional Internship.**

**598-1 to 6 Special Investigations.**

**599-1 to 6 Thesis.**

**600-1 to 36 Dissertation.**

**601-1 to 12 per semester Continuing Research.**



## Women's Studies (Minor)

A women's studies minor is interdisciplinary and designed to enrich and extend a student's major field of sharing insights gained from the study of women or women's issues. Course work can be selected to reflect individual student interests and enhance the major by contributing knowledge, understanding, and sensitivities helpful to students in both the university and work settings.

Women's studies is an appropriate minor for many undergraduate majors as well as for students planning graduate or professional studies. For example, people's orientation toward their work may be affected by an historical understanding of the ways women have been treated by the courts, the health care professions, the educational system, employment, religion, literature, or the arts.

Because it is interdisciplinary, the women's studies minor should reflect academic work in both the arts and humanities and the natural and social sciences.

### Minor

Minors must be approved by the coordinator of women's studies in order to assist students in developing a coherent program that meets their individual interests. The minor requires 18 semester hours of credit, 15 of which must be in women's studies courses, while the remaining 3 hours may be selected from a special interest or related course. Schedules of classes contain listings of relevant courses. The minor must include 221 and 492. Students are urged to discuss and plan their minors with the coordinator of women's studies or with a faculty member who teaches women's studies courses.

### Courses

**221-3 The Sexes in the Modern World: The Social Science Perspective.** (See Sociology 223)

**225-3 Women in Literature.** (See English 225)

**260-3 Greek Civilization.** (See GE-C 230)

**286-3 Marriage and Family Living.** (See Curriculum, Instruction and Media 227)

**303-3 Women and Religion.** (See Religious Studies 303).

**326-3 Women in Communications and Fine Arts.** (See Communications and Fine Arts 397, Section B)

**341-3 Psychology of Women.** (See Psychology 333)

**346-3 History of the American Family.** (See History 369)

**347-3 Women in American History.** (See History 368)

**348-3 Women in European Society 1600 to Present.** (See History 324)

**352-3 Images of Women in French Literature.** (See French 300)

**364-3 Classical Mythology.** (See GE-C 330)

**427-3 Women in the Visual Arts.** (See Art 457)

**442-4 Sociology of Gender.** (See Sociology 423)

**445-3 Women and the American Political Process.** (See Political Science 429)

**454-3 to 6 Topics in Women's Literature.** (See English 496)

**456-3 Philosophical Perspectives on Women.** (See Philosophy 446)

**463-2 Greek Literature in Translation.** (See Classics 405)

**476-3 Women and the Criminal Justice System.** (See Administration of Justice 460)

**488-3 Women in the Home and Labor Market.** (See Consumer Economics and Family Management 480)

**490-1 to 6 Readings.** Supervised readings in selected content areas of women's studies. Prerequisite: consent of instructor and women's studies coordinator.

**491-1 to 6 Special Topics.** Concentration on a topic of interest not offered through the regular course listings. Prerequisite: consent of instructor and women's studies coordinator.

**492-3 to 6 Seminar in Women's Studies.** A synthesizing experience required of seniors completing a minor in women's studies. Activity may include, but is not limited to, the preparation and presentation of a scholarly paper or the conduct of a research project. Prerequisite: 221 or 222, senior standing, and consent of women's studies coordinator.

**493-2 to 6 Individual Research.** Exploration of a research project under the supervision of a faculty member having graduate faculty status. The project must result in a written research report which is filed with the coordinator of women's students. Prerequisite: consent of instructor and coordinator of women's studies and senior standing.

**494-1 to 6 Practicum.** Supervised practical experience in situations centering on women's issues, organizations, services, etc. The setting may be in one's own field of study or in the general content areas recognized in the women's studies program. Prerequisite: consent of instructor and coordinator of women's studies.

## Zoology (Department, Major, Courses)

A major in zoology is an appropriate beginning for those planning a career that includes teaching and research in zoology, conservation, fisheries management and wildlife management, environmental monitoring, or the practice of medicine, dentistry, and veterinary science.

Students majoring in zoology are required to develop an individualized curriculum by consulting with the director of undergraduate studies in zoology and an appropriate faculty member of the department. The curriculum must include: a year of chemistry or physics, one course in mathematics beyond the College of Science requirement or a course in computer science, Biology 305 and 307, Zoology 220a,b 300 (or equivalent, i.e., Biology 309), Zoology 482, and at least 18 additional semester hours of electives in zoology.

Courses offered in the General Education program and Zoology 214 will not be accepted as electives. A minimum of 37 semester hours of biology and zoology must be completed for the major.

### Bachelor of Arts or Bachelor of Science Degree, College of Science

<i>General Education Requirements</i> .....	45 <sup>1</sup>
<i>Supplementary College of Science Requirements</i> .....	11-13
Foreign Languages .....	(4) + 4
Mathematics 108 and 109 or 111 or 140 .....	(3) + 1-3
Physical Science (Not General Education) .....	6 <sup>2</sup>
<i>Requirements for Major in Zoology</i> .....	40-44 <sup>3</sup>
Biology 305, 307 .....	6
Zoology 220a,b, 300 (or its equivalent), 482 .....	13
Elective Zoology courses .....	18
Chemistry or Physics (Not General Education) .....	(6)+0-2 <sup>4</sup>
A course in Mathematics (beyond Mathematics 108 and 109 or 111), or in Computer Science .....	3-5
<i>Electives</i> .....	18-24
<i>Total</i> .....	120

<sup>1</sup>The 45 hour requirement may be reduced by taking College of Science or major requirements which are approved substitutes for General Education courses.

<sup>2</sup>May apply toward General Education if approved substitutes are taken.

<sup>3</sup>Zoology requirements will satisfy biological science for the College of Science.

<sup>4</sup>Satisfies physical science requirements for the College of Science.

### Bachelor of Science Degree, College of Education

Degree taken in the College of Education must satisfy all requirements of that college for the Bachelor of Science degree. The requirements for the major in zoology are the same in both colleges, except that to meet teacher certification requirements a minor in botany is required. Curriculum, Instruction, and Media 468 is also required. College of Education professional education and other certification requirements may be found in the section of this catalog titled Curriculum, Instruction, and Media. See Teacher Education Program, page. 83.

### Minor

A minor in zoology consists of 16 hours, including 220a,b, and 482. Zoology courses acceptable for majors as well as Biology 305, 306, 307, 308, and 309 may



be used to complete the 16-hour minimum requirement; no General Education courses can be included. Courses used to satisfy degree requirements for a major or another minor cannot be used for the minor in zoology.

## Courses

**212-2 Birding.** Bird watching for pleasure. Consideration of identification, songs and ecology of birds, information on bird organization, equipment, and techniques. Credit may not be used toward a major in zoology. Two lectures per week. Offered Fall term. Cost of \$5 to \$10 may be incurred by student.

**214-3 Human Heredity.** Principles of heredity as related to humans, with emphasis on the affects of environment on the biological inheritance.

**220-8 (4, 4) Diversity of Animal Life.** Diversity and its taxonomic treatment in animals, emphasizing structure, function, life cycles, behavior, and phylogeny. (a) Invertebrates, (b) Vertebrates. Two lectures and two 2-hour laboratories per week. Need not be taken in a,b sequence. Fall, Spring, Summer. Prerequisite: GE-A 118 or strong background in high school biology recommended.

**300-4 Vertebrate Embryology.** Main features of embryonic and fetal development from fish to humans. Two lectures and two 2-hour laboratories per week. Offered Fall and Spring terms. Prerequisite: 220b.

**305-2 Genetics Laboratory.** Experimental methods in applying basic principles of genetics. Monogenic and digenic inheritance, sex-linkage, gene interaction, linkage and chromosome mapping, mutation, artificial and natural selection, gene frequencies, and genetic drift. Two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: Biology 305, or concurrent enrollment.

**309-3 Elementary Cell Biology.** Introduction to structure, function, and natural history of major cell types. Two lectures and one 2-hour laboratory per week. Offered Spring term. Prerequisite: consent of instructor.

**314-3 Biology of Human Populations.** Examines in detail three aspects of the increasing human population: its biological causes, its effects on the environment, and biological approaches for solving it. Three lectures per week. Offered Fall and Spring terms.

**316-3 Insect Pests and Their Control.** Classical and economic entomology including morphology, physiology, and taxonomy. Life history, damage, and control of principal injurious insects will be discussed. Two lectures and one 2-hour laboratory per week. Credit may not be used toward a major in zoology. Offered Fall term. Prerequisite: GE-A 118 or equivalent.

**318-5 Comparative Vertebrate Anatomy.** The structure of vertebrate organ systems. Two lectures and three 2-hour laboratories per week. Cost of \$5 to \$10 may be incurred by student. Offered Fall and Spring terms. Prerequisite: 220b.

**351-4 Ecological Methods.** Basic ecological field techniques for analysis of community structure and functional relationships. Two 4-hour laboratories per week. Cost of field trips may be \$5 to \$25 per student. Offered Spring term. Prerequisite: 220a,b and Biology 307.

**375-2 Ecology of Surface Mining.** Environmental characteristics, techniques of evaluating, plans for utilization and reclamation of surface mined areas. One lecture and one 2-hour laboratory or field trip per week. Credit may not be used toward a major in zoology. Cost of \$5 to \$10 may be incurred by student. Offered Spring term.

**390-1 to 3 Internship.** Supervised off-campus training (as in a laboratory or zoological institution) may be counted for credit in zoology. Must receive approval from a zoology faculty supervisor who will evaluate the performance. A proposal must be filed with the director of undergraduate studies. Prerequisite: major in zoology.

**393-1 to 3 Individual Research.** Research on zoological problems. Credit may not be used toward a minor in zoology. Some cost may be borne by the student. Offered Fall, Spring, and Summer terms. Prerequisite: minimum of 3.00 GPA (A is 4.00), senior standing, and approval by the proposed faculty supervisor.

**400-3 Cell Biology of Development.** Cellular molecular mechanisms of embryogenesis and differentiation. Examination of the cell as a component of interacting tissues constituting the developing organism. Prerequisite: consent of instructor, 300 or advanced standing in Biology.

**402-3 Natural History of Invertebrates.** Introduction to ecology, intraspecies communication and interspecies relationships of invertebrate animals. Recommended for teacher preparation programs. Two lectures and one 2-hour laboratory per week. Cost of \$10 to \$20 may be incurred by student. Offered Fall term. Prerequisite: 220a.

**403-3 Natural History of Vertebrates.** Life histories, adaptations, and identification of fish, amphibians, reptiles, birds, and mammals, emphasizing local species. Recommended for teacher preparation programs. One lecture and two 2-hour laboratories per week. Offered Spring semester. Prerequisite: 220b or consent of instructor.

**404-3 Evolutionary Biology.** Concepts and principles of modern evolutionary theory at a level appropriate for upper-division majors and graduate students in any biological science. Prerequisite: 220a,b or equivalent and 305 or consent of instructor.

**405-3 Systematic Zoology.** Theory and procedure of classification; population taxonomy; varia-



tion and its analysis; rules of zoological nomenclature; taxonomic publication. Three one-hour lecture-discussion meetings per week. Prerequisite: 220a, b and consent of instructor.

**406-3 Protozoology.** Taxonomy, cytology, reproduction, and physiology of unicellular animals. Laboratory methods for culture and study. One lecture and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Fall term. Prerequisite: 220a.

**407-4 Parasitology.** Principles, collection, identification, morphology, life histories, and control measures. Two lectures and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: 220a.

**408-3 Herpetology.** Taxonomic groups, identification, morphology, and natural history of amphibians and reptiles. One lecture and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Fall term. Prerequisite: 220b.

**409-4 Vertebrate Histology.** Microscopic structure of organs and tissues with emphasis on mammalian material. Two lectures and two 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term. Prerequisite: 10 to 12 semester hours of biological science.

**410-6 (3, 3) Vertebrate Paleontology.** History of vertebrate animals in terms of their morphological change, geological succession, and ecological relationships. (a) Fossil fishes, amphibians, reptiles and birds. (b) Fossil mammals. Two lectures and one 2-hour laboratory per week. Cost of \$5 may be incurred by student. Offered (a) Fall; (b) Spring term. Prerequisite: 220b.

**413-6 (3, 3) The Invertebrates.** (a) Structure, phylogeny, and habitats of the lower invertebrates through lophophorates and deuterostomes except echinoderms. (b) Structure, phylogeny, and habitats of the higher invertebrates including echinoderms, mollusks, annelids, and arthropods. Three 2-hour laboratories per week. Cost of \$5 may be incurred by student. Offered Spring term, (a) in alternate even years; (b) alternate odd years. Prerequisite: 220a.

**414-4 Freshwater Invertebrates.** Taxonomic groups, identification, distribution, and habitats of the North American freshwater invertebrate fauna. Two lectures, two 2-hour laboratories per week. Offered Fall term. Cost of \$15 to \$20 may be incurred by student for field trips. Prerequisite: 220a.

**415-3 Limnology.** Lakes and inland waters; the organisms living in them, and the factors affecting these organisms. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of \$15 to \$20 may be incurred by student. Offered Fall term. Prerequisite: 220a.

**421-4 Histological Techniques.** Methods of preparing animal tissue for microscopic study and learn theories of staining and histochemistry. One lecture and two 3-hour laboratories per week. Cost of \$15 may be incurred by student. Offered Fall term. Prerequisite: 10 semester hours of biological science.

**426-3 Comparative Endocrinology.** Comparison of mechanisms influencing hormone release, hormone biosynthesis, and the effects of hormones on target tissues. Include ablation and histology of glands and chemical and bio-assays with vertebrates and invertebrates. Two lectures and one 2-hour laboratory per week. Cost of \$5 to \$10 may be incurred by student. Offered Spring term. Prerequisite: consent of instructor.

**460-2 Upland Game Birds.** Identification, life history, ecology, and management. One lecture and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

**461-3 Mammalogy.** Taxonomic groups, identification, and natural history of mammals. One hour lecture and two 2-hour laboratories per week. Cost of \$10 may be incurred by student. Offered Fall term. Prerequisite: 220b.

**462-3 Waterfowl.** Identification, life history, ecology, and management. Two lectures and one 2-hour laboratory per week; there will be three or four Saturday field trips. Cost of field trips up to \$25 per student. Prerequisite: 220b or consent of instructor.

**463-3 Game Mammals.** Natural history and management. Two lectures and one 2-hour laboratory per week. Cost of \$5 may be incurred by student. Prerequisite: 220b or consent of instructor.

**464-3 Wildlife Administration and Policy.** Responsibilities of private, state, and federal natural resources management agencies. Legal and political processes in areas of wildlife and natural resources. Three lecture per week. Offered Spring term. Prerequisite: consent of instructor.

**465-3 Ichthyology.** Taxonomic groups, identification, and natural history of fishes. Two lectures and one 2-hour laboratory per week. Cost of \$10 may be incurred by student. Offered Spring term. Prerequisite: 220b.

**466-3 Fish Management.** Sampling, age and growth, dynamics, habitat improvement, manipulation of fish populations, and management of freshwater and marine fish stock. Two lectures per week and one 4-hour laboratory alternate weeks. Cost of field trips up to \$25 per student. Offered Fall term. Prerequisite: 10 hours of biological science.

**467-3 Ornithology.** Classification and recognition of birds and the study of their songs, nests, migratory habits, and other behavior. One lecture and one 4-hour laboratory per week. Cost of field trips may be up to \$20 per student. Offered Spring term. Prerequisite: 220b.

**468-6 (3, 3) Wildlife Biology.** Basic concepts and techniques for managing wildlife populations and their habitats. A basic ecology course is desirable as background for this course. (a) Principles. Three 1-hour lectures per week. (b) Techniques. Two 3-hour laboratory sessions per week, four of which may be field trips on Saturdays. Cost of field trips up to \$25 per student may be incurred.



Offered Fall term. Prerequisite: 10 semester hours of biological science; concurrent enrollment in 468a and 468b desirable.

**471-3 Entomology.** Structure, classification, and life histories of insects. One lecture and two 2-hour laboratories per week. Offered Fall term. Cost of \$20 may be incurred by student for field trips. Prerequisite: 220a.

**473-3 Aquatic Entomology.** Structure, classification, and biology of aquatic insects. One lecture and two 2-hour laboratories per week. Cost up to \$20 may be incurred by student. Offered Spring term. Prerequisite: 220a.

**478-3 Animal Behavior.** Biological basis of the behavior of animals. Two lectures and one 2-hour laboratory per week. Offered Fall semester. Prerequisite: one year of biological science or permission of instructor.

**479-2 to 5 Concepts in Animal Behavior.** Terms and concepts relevant to the study of animal behavior. Guided self-instructional format, with two 1-hour and one 3-hour period scheduled weekly, primarily as question-answer and evaluation sessions. Offered alternate Spring term (odd years). Prerequisite: one year of biological science or permission of instructor.

**480-2 to 5 Research Methods in Animal Behavior.** Skills relevant to doing research in animal behavior. Guided self-instructional format, with two 3-hour periods scheduled weekly, primarily as question-answer and evaluation sessions. Cost of up to \$25 may be incurred by student. Offered alternate Spring semester (even years). Prerequisite: at least two hours of *B* work in 478 or 479, or permission of instructor.

**482-1 Zoology Seminar for Seniors.** Classical and contemporary topics in zoology. This requirement will normally be met by participating in the regular meeting of the seminar. In lieu of seminar attendance and with consent of departmental chairperson, the student may elect to prepare and give an oral presentation at a special seminar on an agreed upon research topic. One meeting per week. Offered Fall, Spring, Summer terms. Not for graduate credit. Prerequisite: senior standing or 24 hours of life science completed. Mandatory Pass/Fail.

**485-2 to 4 Special Topics in Zoology.** Examination of topics of special interest not available in other departmental courses. Offered in response to student need and faculty availability. Prerequisite: consent of instructor.

**496-2 to 4 Zoology Field Studies.** A trip of four to eight weeks to acquaint students with animals in various environments and with methods of field study, collection, and preservation. Cost of \$25 may be incurred by student. Offered Fall, Spring, Summer terms. Prerequisite: consent of department.

**508-2 Helminthology.**

**512-2 Animal Geography.**

**514-3 Advanced Entomology.**

**520-3 Advanced Invertebrates.**

**521-3 Advanced Limnology.**

**525-3 Cytology.**

**530-3 Wildlife Diseases.**

**540-3 Factors in Animal Reproduction.**

**542-3 Osteology.**

**566-3 Fish Culture.**

**567-1 to 4 Techniques in Fish Culture and Fish Management.**

**573-3 Physiological Ecology.**

**577-2 Population Ecology.**

**578-2 Population Genetics.**

**580-3 Advanced Taxonomy.**

**581-2 Zoological Literature.**

**582-1 to 4 (1, 1, 1, 1) Graduate Zoology Seminars.**

**583-1 Teaching Zoology in College**

**585-36 (3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3) Seminar.**

**593-1 to 12 Individual Research.**

**598-1 to 12 Research Paper.**

**599-1 to 12 Research and Thesis.**

**600-1 to 32 Research and Dissertation.**

**601-1 to 12 per semester Continuing Research.**





## Campus Life

### Office of Student Development

The Office of Student Development, located on the third floor of the Student Center, sponsors a wide array of programs, activities, and services designed to provide students with opportunities that enhance and complement the traditional classroom learning experience.

*Student Orientation Programs.* The Office of Student Development provides a comprehensive orientation program for new students and their parents. These programs are designed to assist students in making a smooth transition into the University community and to introduce both new students and their parents to the University's vast resources, services, and programs. Orientation sessions are offered prior to the beginning of each semester and on new student advisement and registration days. Upperclassmen, known as student life advisers, serve as orientation peer advisers to help the new student learn about the campus and its services. The Student Orientation Committee is available year round to assist students. For more information or assistance, telephone 453-5714.

*It's MAGIC.* Project MAGIC (Maximize Academic Growth In College) is a general advisement program for freshman students. The purpose of the program is to help freshman students derive the greatest benefit from the people, programs, and facilities at the University. This is done by providing interested freshmen with the opportunity to develop a friendly and helpful relationship with a member of the University faculty or staff, a mentor, who can assist the new freshman in developing career and academic goals, in learning how to maximize the educational opportunities available at the University, and in becoming acclimated to college life. To enroll in Project MAGIC, contact the Office of Student Development, 453-5714.

*Project Ahead.* In cooperation with the Department of Sociology, the Office of Student Development provides an academic course for first semester students at the University. Commonly referred to as Project Ahead (A Humanistic Educational Approach to Development), the course is designed to help prepare students for success in college. The course uses an experiential learning mode of activities and group discussions pertaining to the freshman year experience. Topics for discussion focus on factors and issues associated with successful adjustment in college and academic achievement. Students learn valuable tips on study skills, communication skills, reading skills, time management techniques, and testing skills. For additional information, contact the Office of Student Development, telephone 453-5714.

*Southern Illinois University Parents Association.* Open to all parents of students at the University, the parents association provides opportunities for parents to become better informed and more positively involved with their student's education and university experiences. The nominal annual family membership fee entitles parents to periodic newsletters, special event programs, and a number of University and community discounts. Membership applications are available from the Office of Student Development.

*Registered Student Organizations.* The professional staff of the Office of Student Development works with the more than 350 registered student organizations on the campus in the areas of fiscal management, organizational matters, and University policies and procedures. The office also provides a variety of services designed especially for the organizations: membership referrals, student organization directories, leadership development workshops, student organizational procedural manuals and leadership training modules, equipment checkout service, copy duplicating service, mail box service, and programming resource library. Included among the organizations are student governmental groups, coordinating councils, public interest groups, fraternities and sororities, publication and media groups, scholastic and professional honoraries, departmental clubs, special interest groups, religious organizations, and sports and recreation clubs. Interested students should contact the Office of Student Development or attend an activities fair to learn more about student organizations.

*Black Affairs Council.* Black Affairs Council serves as the coordinating and governmental body for the 16 Black student organizations on campus. It assumes a major responsibility for programming social, cultural, and educational programs for Black students at the University. The offices are located on the third floor of the Student Center, telephone 453-2534.

*Inter-Greek Council.* Inter-Greek Council is the activity coordinating council for the University's 15 social fraternities and 9 social sororities. Sub-councils include the Inter-Fraternity Council, the Panhellenic Council and the Pan-Hellenic Council. The Greek system promotes leadership, scholarship, and service, offering students an opportunity to enhance their University experience. Rush, or membership recruitment, is sponsored at the beginning of fall and spring semesters, as well as at designated times throughout the year. For additional information, contact the Inter-Greek Council, telephone 453-5714.

*Mobilization of Volunteer Effort.* Mobilization of Volunteer Effort (MOVE) promotes student involvement and leadership in the University and community. It sponsors leadership development programs for student organizations and serves as a clearinghouse to coordinate student volunteer interests with the needs of over 75 service organizations on campus, in Carbondale, and in communities within a six-county area. The outreach programs provide opportunities for students to gain experience in nearly every field of interest: day care, senior citizens, recreation, handicapped, mental health, youth, tutorial, corrections, crisis, and intervention. The United Way Campaign and the Red Cross Blood Drive are examples of special projects. Special events include activities such as Mobilization of Volunteer Effort Week, community development projects, and charity benefits. Mobilization of Volunteer Effort also serves as a referral and coordinating agent for student organizations which promote service and need assistance with a project or special event. Mobilization of Volunteer Effort is located in the Office of Student Development, telephone 453-5714.



*Credit for Programming.* In cooperation with various academic units, the Office of Student Development provides opportunities for students to receive academic credit for their participation in student activities and student organizations. Opportunities available include leadership development courses for fraternity and sorority members, community service-learning programs for Mobilization of Volunteer Effort workers, leadership development seminars for orientation student life advisers, and undergraduate and graduate internships.

*Rainbow's End Preschool.* Rainbow's End is a comprehensive day care, child development center designed to serve children, ages 6 weeks to 10 years, of University students, faculty, and staff members. The center, which is staffed by qualified professionals, is licensed by the Illinois Department of Children and Family Services and is a participant in the State of Illinois Food Reimbursement Program. Rainbow's End is open from 7:30 a.m. to 5:30 p.m. each day the University is in session. Tuition and fees are assessed according to the number of hours for which the child is enrolled and are based upon a sliding parental income scale. Rainbow's End is located at Lakeland School, 925 South Giant City Road in Carbondale, telephone 529-2271.

## **Student Center**

The Student Center is the community center of the University for all students, faculty, staff, alumni, and guests. It is not just a building—it is an organization and a program which together represent a well-considered plan for the community life of the University.

The Student Center offers students many work and cocurricular opportunities. Approximately three hundred students annually have job opportunities in the Student Center and the center receives sizeable student work aid to supplement work opportunities. There are also academic credit and work-related opportunities in conjunction with Commercial Graphics-Design, and the Departments of Educational Administration and Higher Education and Recreation. In addition, through Student Center and Student Programming Council programs, nonmajors may become actively involved in theater, dance, and other performing arts activities.

As a community center it performs four important missions. It supplies support services which complement the academic mission of the university through the bookstore, food service, information services, and meeting facilities. It is part of the educational program of the University and serves as a laboratory of citizenship and leadership through participation in its various boards and committees that provide a campus-wide social, cultural, and recreational program. It is an extension of the classroom which allows practicum students, graduate assistants and interns the opportunity to develop on-the-job expertise in their fields of learning. It serves as a unifying force in the University, cultivating interactions on a common ground between students, faculty, staff, alumni, and friends. It is a focal point to which alumni and students can relate when returning to campus.

The Student Center covers almost eight acres of floor space and is open approximately 16 hours a day, seven days a week. The University Bookstore sells new and used textbooks and school and personal supplies. A variety of food services are offered in the cafeteria, snack bar, deli, restaurant, grocery and bakery and through concessions and catering service. Other facilities and services are automated post office, automated banking, event ticket sales, check cashing, Student Health Assessment Center, Western Union money order receiving station, bowling lanes, billiard room, craft shop, art exhibit and display case areas, television and video lounges, and general lounges for study and relaxation.

Other available facilities include ballrooms, an auditorium, and several private meeting and dining rooms. Offices in the Student Center are the Alumni Office, the Student Development Office, the University Programming Office, and student organization and student government offices.

### **University Bookstore**

The University Bookstore is an integral part of the Student Center and is located on the ground floor with the main entrance at the cross halls.

As part of the educational process, the University Bookstore provides textbooks and specialized supplies for all classes. It also has a general book department with references and current best sellers. In the supply sections, the University Bookstore carries a variety of office supplies, school supplies, art and engineering materials, computer supplies, imprinted apparel, gift items and greeting cards, and personal products.

The University Bookstore also provides the following services: book and thesis binding, laminating, rubber stamp ordering, class ring sales, technical pen cleaning, typewriter rentals, gift wrapping, document placquing, geological survey maps, postage stamps, telex news via Western Union, Visa and Mastercard, cap and gown rental and sales, special order services for books and supplies, and textbook buy back service. Money spent at the University Bookstore returns to the operation of the Student Center.

Another important mission of the University Bookstore is to provide job opportunities, retailing and marketing experiences, internships, and a laboratory for research.

### **SIU Arena**

The SIU Arena is designed to accommodate athletic events, meetings, musical programs, stage performances, and similar activities that demand a large indoor participant area or facilities to accommodate large audiences. The facilities and staff are available to help meet the requirements of the educational program as well as the intercollegiate athletics program, Area Services, the Division of Continuing Education, and student activities. The SIU Arena also provides a popular entertainment series to help fulfill the educational, cultural, social, and entertainment needs of the University community.

### **Shryock Auditorium**

Shryock Auditorium, located in the center of the historic old campus section of the University, is the premiere performing arts center of southern Illinois. Constructed in 1918, the building was completely renovated in 1973. The facility has 1,200 seats, a dressing room complex capable of accommodating up to 70 performers, and the latest in sound and light control systems.

Each year the auditorium's Celebrity Series features some of the finest Broadway musicals and plays, orchestras, dance companies, and grand opera. In addition to the fine arts, Shryock Auditorium frequently presents pop, folk, and rock concerts in a setting of comfort and acoustical perfection. The facility is also available for rental by any campus organization for large group meetings, conferences, and special events.

### **Campus Communications Media**

#### **SIUC BROADCASTING SERVICE**

The SIUC Broadcasting Service operates public television stations WSIU in Carbondale and WUSI in Olney. It also operates WSIU-FM in Carbondale. Students are provided opportunities to get hands-on experience in a wide range of radio and television specialties. The Broadcasting Service encourages active student volunteer participation in all areas of its operations. Students are able to work with



modern equipment in actual on-the-air situations. They can become involved in the creation of radio and television programming, and they can compete for paid student crew positions.

The stations of the SIU Broadcasting Service are affiliated with a variety of national organizations such as National Public Radio and the Public Broadcasting Service. Students who work at the stations, while completing their major in radio and television, have learning experiences available to them which are extremely valuable upon entering the job market. Southern Illinois University at Carbondale is known nationally and admired for the practical experience it provides its students through participation in radio and television station activities.

#### NEWSPAPER

The *Daily Egyptian*, campus newspaper, is published Mondays through Fridays when the University is in session and serves as a morning daily newspaper for the University community. The publication also serves as a laboratory newspaper for students in the School of Journalism, produced under professional supervision, using student editors and staff. About 95 students work at news gathering, editing and layout, production, advertising and distribution. The circulation is about 27,000. Students do not have to be enrolled in journalism to be employed in the newspaper departments of news, photography, camera, paste-up, typesetting, advertising, business, printing, and circulation. The newspaper is published and printed in a complete modernly equipped electronic plant and facilities to produce a 40-page daily newspaper on a web offset press.

#### Intercollegiate Athletics for Men

Southern Illinois University at Carbondale has had one of the finest all-around men's athletic programs in the country for many years and plans are to maintain the rich tradition despite recent financial cutbacks.

The program consists of ten sports, all competing at the Division I level with the exception of football which operates within the NCAA's Division I-AA framework. As a matter of fact, the football team is the most recent to claim a national championship as the Salukis won the 1983 title before a national television audience.

Just this past season, the gymnastics team finished seventh in the NCAA national championship meet while Saluki swimmers were 17th, the 25th time in the past 27 years the swimmers have been among the top 20 teams at the NCAA finals.

The baseball team won the Missouri Valley Conference championship by sweeping a four-game series from nationally-ranked Indiana State University and was looking for a return ticket to the College World Series where the Salukis have made five previous trips.

The football, basketball, and track programs are presently being renovated after recent coaching changes and heavy personnel turnover. Football competes in the Gateway Conference while both basketball and track, as well as baseball, golf, and tennis teams, compete in the strong Missouri Valley Conference. The Salukis last won the league's all-sports trophy two years ago, but are expected to be in a strong challenging position for that coveted honor again next season.

Many former Salukis have distinguished themselves in almost all sports at the national level as professional or amateur athletes.

#### Intercollegiate Athletics for Women

The 1985-1986 sports year was the fourth for the Saluki women as part of the Gateway Collegiate Athletic Conference (GCAC). Southern Illinois University at Carbondale held its own by capturing conference titles in basketball, golf, and outdoor track, while the volleyball, swimming and diving, and indoor track teams finished second in league championships. For the first time, the Saluki women

won the Commissioner's Trophy in the Gateway conference. This cup is awarded annually to the Gateway school with the highest finishes in all the league championships during the school year.

In swimming, the University repeated its fifth place finish at NCAA nationals despite the graduation loss of two four-time All Americans and the absence of an NCAA diving champion. Not only did the Salukis finish in the top ten at nationals for the fifth season in a row, but the rookie skipper was named NCAA Women's Coach of the Year by his peers.

In golf, Southern Illinois University at Carbondale won its second Gateway crown in the past three years and three Saluki players were named All-Conference.

In basketball, the Saluki women had their best season ever, winning 23 straight games and finishing with a 25-4 record. The team became the first in Gateway Conference history to complete league play unbeaten (18-0). The University qualified for its first NCAA tournament after being ranked during the season for the first time ever in both the AP coaches and the *USA Today* polls. The coach guided the team to its fourth consecutive 20-win season and was named Coach of the Year (District IV) by both the Women's Basketball Coaches Association and the Gateway Conference.

The Salukis excelled in other sports as well. In softball, the University enjoyed another 20-win season. In indoor track, the University had the Most Valuable Player at the Gateway meet where the team turned in its highest finish ever, and had NCAA qualifiers for the second year in a row. In the final year of women's gymnastics at the University, the Salukis were one of only 30 teams nationally to qualify for an NCAA regional.

In the classroom, women athletes were equally outstanding. Program participants in 11 sports maintained a cumulative grade point average of 2.88. For the third year in a row, SIU had more female athletes cited for academic excellence by the Gateway Conference than any other member school. One athlete became the school's fourth Academic All American to be selected by the College of Sports Information Directors of America.

The longtime women's athletic director was selected to the NCAA Council. She is one of only 22 individuals representing Division I schools nationwide who now serves on the highest legislative body for intercollegiate sports in the United States.

### **Intramural-Recreational Sports**

The Office of Intramural-Recreational Sports, located in the Student Recreation Center, provides campus-wide, year-round programs to meet the needs of individuals and groups wishing to participate in sport or leisure time activities. Program opportunities are available at the Student Recreation Center, various campus playfields, tennis courts, and Lake-on-the Campus.

Intramural sports offers organized tournaments and special events for individual and team competition. Recreational sports programs include informal recreational opportunities, recreation for special populations, sport clubs, family programs, fitness workshops, and aquatic activities at the 40-acre Lake-on-the-Campus.

The Student Recreation Center houses a gymnasium, an Olympic-size swimming pool, eight handball/racquetball courts, a martial arts room, equipment check-out areas, a dance studio, a weight room, saunas in each locker room, and a climbing wall.

Recreational equipment is available for indoor and outdoor use. Base camp provides equipment rental for backpacking and camping at a nominal fee.

Adventure Resource Center offers information, workshops, and leisure counseling to assist students with awareness of recreational opportunities and leisure alternatives on campus and throughout Southern Illinois.



For detailed information concerning programs and facilities, contact the Office of Intramural-Recreational Sports, 536-5531.

**Campus Ministries**

Campus Ministries at Southern Illinois University at Carbondale, with an awareness of the diverse religious and cultural traditions existing in society, are committed to all efforts unifying the people of God with loving concern for one another. The member ministries see the University as a unique setting for the development of personal growth and commitment in a richly varied environment, providing dialogue and interaction in all aspects of a person's life. They share with all participants in the University community in a joint search for truth and an ever deeper meaning in life. For a current brochure containing more detailed information concerning their worship, program, and fellowship offerings, telephone (618) 549-1694.

**Campus Services**

**Student Health Program**

The University provides an extensive health benefits plan through the Student Health Program. Student input to the plan is provided through the Student Health Program Advisory Board. Interested students may contact the chairperson of the Student Health Program Advisory Board 453-3311.

AREAS OF SERVICE

The Student Health Program offers the following interrelated programs.

*Wellness Center.* The Wellness Center offers programs and services to help students achieve optimal health and to skillfully administer self-care when ill. Individual and small group counseling, workshops, and seminars in the Student Center, residence halls, and Student Recreation Center, classroom presentations and special programs are offered throughout the year. Specific services provided through the Wellness Center are as follows:

Stress Management Information	Alcohol and Drug Information and Counseling
Weight Loss Counseling	Wellness Library
Nutrition Assessment Information and Counseling	Wellness Outreach Program—Student Center
Yoga, Meditation and Tai Chi Classes	Residence Hall Programs and Public Presentations
Self Care Advice for Athletic Injuries	Practicum and Internship Training
Patient Education	Health Advocate Program
Birth Control Information and Counseling	Biofeedback
Pregnancy Counseling	
Sexuality Information	

*On-Campus Outpatient Care.* This care or primary care is the same as that offered by private general physicians. The Health Service is staffed by the equivalent of seven full-time physicians, a full-time psychiatrist, support staff, and student workers. The student benefits include all routine office care and a wide range of diagnostic tests, including x-ray and laboratory procedures. The benefit does not cover pharmacy charges and may include a small front door fee. To be seen at the clinic, call for an appointment 536-2391. Walk in services are available for emergency care.

*On-Campus Infirmary.* On-campus infirmary is provided in an eight-bed inpatient setting on the second floor of the Health Service. Intermediate care is pro-

vided for illness when medical and skilled nursing care is required but the student is not in need of hospitalization. Admission to the infirmary must be authorized by a Health Service physician or by an emergency room physician during the hours when the Health Service is closed. Fee-paying students are entitled to room and board, diagnostic x-ray and laboratory procedures, and physician visits with minimal cost.

*Dental Services.* The Student Emergency Dental Service provides dental care to resolve emergency dental disorders. There is a small front door fee. For appointments or information, call 536-2421.

#### LOCATION OF SERVICES

On-campus services of the Student Health Program are available at the following locations. The outpatient clinic, infirmary, and x-ray and laboratory services are located in 115 Greek Row, 453-3311, or 536-2391 for appointments. The pharmacy, wellness center, and administration office are located at 112 Greek Row, 453-3311, or 536-4441 for wellness center. The student emergency dental program is located at the School of Technical Careers building, Room 25D, 536-2421. The Student Health Assessment Center is located in the Student Center. Health Advocate Offices are located in 106A Grinnell, 106 Trueblood, and 4 Lentz Hall.

Off-campus services for after hour emergency care are available at Memorial Hospital of Carbondale at 404 West Main Street, 549-0721.

#### ELIGIBILITY

Any student who is enrolled at Southern Illinois University at Carbondale and has paid the student medical benefit fee is eligible for services. If a refund has been issued for parts of the fee, as explained below, the student is still eligible for service in the areas not refunded. See student health manual for specific coverage dates. Dependents of students or staff members of the University are not eligible for Student Health Program benefits.

#### FEES

The student health fee is assessed each semester and summer session and is distributed to the programs listed below. A student who receives a refund of any portion of the fee is not eligible for the benefits of that program but would continue to be eligible for benefits of any programs for which the fees have been paid.

Wellness Center On-Campus

On-Campus Outpatient Program

Infirmary On-Campus

Student Emergency Dental Service On-Campus

The Student medical insurance fee is assessed each semester and summer session and is distributed to the off-campus insurance benefits listed below. No partial refunds are given in this area; however, the entire amount may be refunded. The overall maximum per illness or injury is \$50,000.

Emergency Room

Ambulance

Professional Services

Hospitalization

Out-Patient Surgery

Accidental Death and Dismemberment Benefit

Optional coverages are available as follows: excess supplemental, dependent coverage, maternity coverage, and continuing coverage for graduating students. Open enrollment for these programs will take place during the first three weeks of each semester. Optional summer coverage is available to those students not attending the University during summer session. This optional coverage must be purchased prior to the expiration of the spring semester coverage period.



For additional information on benefits and specific details of the student insurance coverage and optional coverages, please call 453-3311. The brochure entitled *Searching for Health* is available upon request.

Students who carry their own medical insurance or are covered under their parents' policy may be eligible for a refund of portions of the student medical benefit fee. Students who think they may qualify for a refund may apply no later than the end of the third week of each semester by contacting the administration office—insurance section of the Student Health Program. When applying, students should provide a copy of their insurance policy. The administration office—insurance section is located in Room 118 of 112 Greek Row, 453-3311.

#### CONFIDENTIALITY OF INFORMATION

All visits to any division of the Student Health Program are confidential. Medical information may be released when authorized by the student. Medical information may also be released without authorization from the student to a court when subpoenaed, to the University legal counsel when the university is being sued and the medical information would be pertinent, and to the public health department as required by law when a student is suffering from a reportable communicable disease. In addition, cases involving firearms and criminal offenses must be reported to the police.

### Women's Services

The purpose of Women's Services, a component of the Counseling Center, is to maximize the opportunities and experiences of women attending Southern Illinois University at Carbondale. Various services are offered, including those listed below. 1. The re-entry program assists re-entry women in their transition back into the University. A special orientation session focused on the special needs and concerns of the non-traditional student is offered each semester. Child care information and an emergency locator system is available for students with children. Other services include an on-going re-entry support group, brown bag lunches, and financial aid information, as well as individual consultations for women needing support or assistance in dealing with personal, family, educational, or vocational concerns. 2. The campus safety program includes self-defense classes; rape and sexual assault awareness workshops; dorm raps, and class discussions related to safety issues. Information regarding night safety van and station wagon and Women's Transit is also available. 3. Outreach programming encompasses a variety of activities. Workshops and discussions addressing pertinent topics of interest to women are offered on a regular basis. A newsletter, *Women in Transition*, is published three to four times a semester with the purpose of informing the University community of timely issues relevant to women today, such as health care, safety, careers, and similar topics. Staff members are also available to consult, give information and refer women with specific concerns to appropriate services. Short term counseling services and structured groups are available for women desiring assistance with difficulties they may be experiencing in the University environment or at home. 4. Library services make available many books and articles relevant to women's issues which are not found elsewhere on campus. 5. Consultation activities with other University staff and units that are involved with women in the University and community are provided as needed. 6. A clearinghouse for resources and referral information of pertinent programming for women is also maintained and is available upon request.

Women's Services is located in Woody Hall B244, 453-3655.

### Career Planning and Placement Center

The Career Planning and Placement center provides assistance to students preparing for entry into the working world. Placement consultants are available to assist students and alumni with all aspects of the job search including planning,

resume writing, interviewing techniques, letters of application, general information about career opportunities in their field, and specific facts about positions taken by recent SIU graduates in that major area of study. The Career Planning and Placement Center is contacted annually by over 500 recruiters, representing businesses, government agencies, schools, and service organizations. Lifetime credential service is available to all students at the Career Planning and Placement Center, and alumni are encouraged to inform the center of their plans and avail themselves of the available services. Students may establish a file containing their resume and letters of recommendation, which will be sent upon request to any employer seeking to fill a vacancy or to any graduate school of the student's choice.

The career development and experiential learning program is available to undergraduates of all majors who seek paid work experience prior to graduation. Paid work experience may be via internship or cooperative education. Students should contact Career Planning and Placement Center to register at no fee for the mandatory orientation seminars offered in September and October.

Internships acquired generally consist of paid work experience during summers. Cooperative education work experience is contracted as specified by respective employers. Course credit must be arranged with the student's academic department.

### **Career Counseling**

Career counseling is a unit charged specifically with helping students resolve career or choice of major conflicts by providing direct access to a staff of professionally trained counselors. Students who have not chosen a major, or who wish to examine work values and assess their abilities, can talk with professional career counselors on a one-to-one basis. They will be assisted in clarifying their ideas about themselves and in identifying possible occupational alternatives. The career counselors also administer and interpret tests and surveys to determine an individual's aptitude, interest, achievement, and personality factors. A career information library is maintained by Career Counseling and provides students with printed and taped materials about career fields, specific job opportunities, and job search techniques. Students may engage in computerized career exploration by using CASIE (Computer Assisted Self Investigation and Exploration), a career decision making program and DISCOVER, a nationally based computerized career information and decision making interactive program. The center is located in B204 Woody Hall, 536-2096.

### **Testing Services**

Testing services offers GED and admission tests required for undergraduate and graduate admission. Credit by examination, local proficiency, and the national CLEP and PEP programs are available with required preregistration. Certification, licensure, and competency programs as required by state and professional associations are also offered to any candidate as a regional service. Registration brochures for most programs are available in Testing Services and many provide helpful sample questions allowing candidates to become familiar with test content and emphasis.

### **Counseling Center**

The Counseling Center is staffed with professional psychologists and counselors qualified to assist students with personal development issues and to resolve emotional problems. Personal problems, relationship adjustment difficulties, family conflict, and sex role awareness development are areas of frequent concern to students. Individual, couple, and group counseling, as well as crisis intervention, are provided within an atmosphere of confidentiality and trust. In addition, personal



development group programs are available to assist students in such areas as social skill development, assertiveness, drug and alcohol abuse, managing anger, eating behaviors, and others. Call 453-5371 for information or an appointment. The center is located in A302 Woody Hall.

### **Services to Students with Disabilities**

The University maintains a strong commitment to make all services, programs, and activities equally available to students with disabilities. Disabled students are integrated into regular programs and services and special services are provided through the Disabled Student Services Office and other departments in order that this student population may obtain the maximum academic, social, and cultural benefits within the University community. Available services and programs include pre-admission information, pre-enrollment planning, orientation and mobility training, special transportation, special recreational activities, career counseling and placement services, proctoring academic examinations, special materials and equipment for visually impaired students and learning disabled students, reader recruitment and referral, recruitment and referral of personal attendants, provision of interpreters and notetakers for hearing impaired students, wheelchair repair, special parking, liaison with academic departments and other offices, and liaison with agencies such as vocational rehabilitation and the Veterans Administration.

The campus is quite accessible and usable by students who use wheelchairs, and by those who are semi-ambulatory, visually handicapped, hearing impaired, or otherwise disabled. The University Housing Office provides modified housing in the Thompson Point Residential Area and in the family housing areas.

Persons with disabilities apply and are considered for admission in the same manner as other persons. The nature or severity of disability is not considered in the admission determination. Persons with disabilities interested in attending Southern Illinois University are encouraged to visit the campus in order to discuss programs and services and to tour the campus. Disabled prospective students are also encouraged to formally apply for admission as far in advance as possible to ensure sufficient time for planning support services after being admitted but before the starting date of the semester.

Any further information may be obtained by writing to the Office of Admissions or the Disabled Student Services Office. The Disabled Student Services Office may be reached by calling (Area Code 618) 453-5738. This number provides opportunity for regular voice communication as well as a telephone device for the deaf (TDD) for communication by and with deaf persons.

### **Office of the University Ombudsman**

The Office of the University Ombudsman is an independent and impartial University agency directly responsible to the president. The mission of this office is to assist members of the campus community (students, faculty, administrative/professional staff, and civil service employees) in resolving issues of concern or dissatisfaction regarding their rights. The University Ombudsman is experienced in the interpretation of all University policies and procedures. Services include expeditious settlement of many large and small problems which range from academic, financial, and housing related to conflicts of a personal nature. Assistance may include help with location of information that bears on a client's status, preparation of responses and appeals to appropriate persons, intervention as mediator in order to obtain formal settlement of disputes, and recommendation for changes in policies or procedures that have proved to be inequitable. Through the use of the Office of the University Ombudsman, most problems brought to its attention are prevented from escalating into formal grievances or remaining unresolved.

The Office of the University Ombudsman maintains up-to-date information

files on University policies and procedures. All contacts made are strictly confidential.

The office is located in Woody Hall C302; hours are 8:00 to 4:30, Monday through Friday; telephone number 453-2411.

### **Clinical Center**

The Clinical Center is staffed by professionally trained faculty and by supervised student diagnosticians, therapists, and counselors. It provides diagnostic and treatment services to faculty, staff, University students, and other individuals in the community.

Services include diagnostic assessment of psychological, speech, hearing, reading, and general education problems. Therapy services encompass various forms of counseling and behavior modification, social casework, speech and hearing therapies, physical therapy, and educational remediation.

### **Alumni Services**

Alumni Services acts as a liaison between the University and over 85,000 alumni. It conducts an extensive program of activities of interest to both the University community and the alumni body. Students are assisted by alumni through loans, scholarships, and awards which are administered by the Office of Student Work and Financial Assistance. The office also coordinates the Student Alumni Council, a volunteer organization of students serving other students and the University through a variety of activities.

### **University Museum**

The University Museum serves the campus community and surrounding area through its active exhibit program and in its cooperative ventures with other academic units to improve the quality of instruction.

The exhibits housed in Faner Hall, C wing, are designed to give viewers an authentic glimpse of the area's past. Temporary exhibits are displayed in Faner Hall and include a series of graduate student thesis presentations, faculty art, and photography, as well as exhibits from the permanent collections and special national and international exhibits designed around a particular theme. In addition to these formal exhibits, many permanent collection objects are displayed at several other campus locations.

The University Museum also serves students in more specific ways, by providing on-the-job training, courses in museum studies, and opportunity for creating and installing practicum exhibits of art, history, and science. Through these avenues, students are able to draw on the extensive collections which include approximately 2,500 works of fine art, ethnographic artifacts from many areas of the world and 19th and 20th century historic objects.

The University Museum provides a community service through guided tours, lecture programs, a loan program, and exhibits in public places; and works with many area groups to provide meaningful learning experiences.

## **International Programs and Services**

International Programs and Services provides a comprehensive international services program for the University and broader community. The program includes a wide range of immigration and financial services; educative and supportive services; international opportunities for students and faculty through exchanges and credit/non-credit travel study, and community programs.

*Immigration and Financial Programs and Services.* Immigration and financial



programs and services processes financial clearance for admissions of foreign students, serves as a liaison with foreign governments and sponsoring agencies, and provides certification for foreign currency exchange. Information about sources of financial aid for international students is also available. The division provides assistance with U.S. immigration regulations, visas, and interpretation of the law pertaining to non-immigrant students and staff. Forms prescribed for use by the Immigration and Naturalization Service for documenting foreign students and faculty are available.

*Educative and Supportive Programs and Services.* Educative and supportive programs and services provides a full complement of programs and activities including pre-arrival information for new students; orientation programs, a monthly newsletter, the *International Dateline*; foreign student advisement; international student associations coordination; and international student recruitment and alumni services. This division also handles pre-admission correspondence, provides initial arrival assistance, assists students with matters involving campus offices and community agencies and provides personal counseling.

*Study Abroad Programs.* The study abroad division coordinates services for American students and faculty, including international grant programs exchanges and study abroad programs. It is the central referral point for information on the student and faculty Fulbright programs and on the British Marshall, International Research and Exchange Board (IREX), Belgian-American Educational Association, and Rhodes scholarships. Graduate students may also participate in inter-university international exchange programs and in travel/study programs offered during the summer and intersession periods under the auspices of this division.

*Community Programs.* International programs and services works closely with the International Friends Club, a community volunteer organization. Eight programs are offered to international students and their families and international visitors for the purpose of intercultural understanding and exchange. The programs include the Host Family Program, English in Action, Language Exchange, Speakers Bureau, International Custom Cooking Demonstration, American Cuisine, International Spouses Group, and a Loan Closet.





# 6

## Faculty

### Accountancy (College of Business and Administration)

**Anderson, Donald T.**, Associate Professor, Ph.D., Texas A & M University, 1980.  
**Barbeau, Debra J.**, Lecturer, M.Acc., Southern Illinois University, 1985.  
**Barron, Mary Noel**, Associate Professor, *Emerita*, C.P.A., M.B.A., Indiana University of Michigan, 1946.  
**Basi, Bartholomew A.**, Professor, C.P.A., J.D., D.B.A., Indiana University, 1971.  
**Burger, Clifford R.**, Professor, *Emeritus*, C.P.A., M.S., Indiana State University, 1947.  
**Hahn, Randall**, Assistant Professor, C.P.A., D.B.A., University of Kentucky, 1984.  
**Joy, David**, Assistant Professor, Ph.D., University of Nebraska, 1984.  
**Karnes, Allan**, Instructor, C.P.A., M.A., Ball State University, 1977.  
**Kennett, Danny**, Assistant Professor, Ph.D., Mississippi State University, 1983.  
**Lumbattis, Cathy**, Visiting Instructor, C.P.A., M.B.A., Southern Illinois University at Edwardsville, 1975.  
**Masoner, Michael**, Associate Professor, C.P.A., Ph.D., University of Minnesota, 1975.  
**McGowan, John R.**, Lecturer, C.P.A., M.Acc., Southern Illinois University, 1981.  
**Rigsby, John T.**, Instructor, C.P.A., M.S., Memphis State University, 1977.  
**Rivers, Richard A.**, Associate Professor, C.P.A., D.B.A., Kent State University, 1976.  
**Schmidlein, Edward J., Jr.**, Professor, *Emeritus*, C.P.A., Ph.D., New York University, 1953.  
**Stahr, James A.**, Lecturer, C.P.A., M.B.A., M.Acc., Southern Illinois University, 1982.  
**Stener, Julia A.**, Assistant Professor, C.P.A., Ph.D., St. Louis University, 1982.  
**Swick, Ralph D.**, Professor, *Emeritus*, C.P.A., D.B.A., Indiana University, 1954.  
**Tucker, Marvin W.**, Professor, Ph.D., University of Alabama, 1966.  
**Wright, Roland M.**, Professor, C.P.A., Ph.D., University of Iowa, 1962.  
**Wu, Frederick, Professor and Chairperson**, D.B.A., Texas Tech University, 1975.

### Advanced Technical Studies (School of Technical Careers)

**Adams, Deborah K.**, Visiting Instructor/Administrative Assistant, M.A., Southern Illinois University, 1983.  
**Alden, Elaine F.**, Associate Professor, Ph.D., University of Pittsburgh, 1971.  
**Bowman, Terry S.**, Assistant Professor, M.A., Webster College, 1979.  
**Broker, Rodney**, Academic Advisor, M.A., University of Alabama, 1976.  
**Brooks, Thomas M.**, Professor, Ph.D., Pennsylvania State University, 1961.  
**Bryars, Janet C.**, Visiting Assistant Professor, M.Ed., Harvard University, 1962.  
**Caroll, Brian J.**, Visiting Assistant Professor, J.D., San Francisco Law School, 1984.  
**Dallman, Murnice**, Associate Professor, *Emeritus*, M.S., Southern Illinois University, 1959.  
**Eggers, Stephen Charles**, Visiting Assistant Professor, M.B.A., Southern Illinois University, 1978.  
**Falkenberry, William A.**, Visiting Assistant Professor, M.S., Southern Illinois University, 1980.  
**Fiock, Thomas P.**, Assistant Professor, M.S., Southern Illinois University, 1982.  
**Grace, Linda M.**, Assistant Professor, Ph.D., Southern Illinois University, 1985.  
**Hertz, Vivienne**, Associate Professor, Communications, Ph.D., Southern Illinois University, 1980.

**Hoffman, Nancy L.**, Visiting Instructor/Administrative Assistant, M.S., Southern Illinois University, 1969.  
**Hohman, Sherry L.**, Academic Adviser, B.S., Southern Illinois University, 1976.  
**Horton, John B.**, Visiting Assistant Professor, M.Ed., Clemson University, 1972.  
**Isberner, Fred R.**, Assistant Professor, Ph.D., Southern Illinois University, 1984.  
**Kahler, Raymond D.**, Assistant Professor, M.A., Webster College, 1981.  
**Laedtke, Ralph**, Visiting Assistant Professor, M.A., Webster College, 1977.  
**Lee, Lynda L.**, Visiting Assistant Professor, M.A., Webster College, 1979.  
**Moore, Mary Ann**, Visiting Assistant Professor, M.Ed., Georgia State University, 1969.  
**NewMyer, David**, Assistant Professor, M.S., Northwestern University, 1974.  
**Nidiffer, Richard W.**, Visiting Assistant Professor, M.A., Webster University.  
**Novick, Jehiel**, Assistant Professor, *Emeritus*, Ph.D., Southern Illinois University, 1970.  
**O'Donnell, Michael D.**, Visiting Assistant Professor, M.P.H., University of South Carolina, 1981.  
**Polito, Joseph P.**, Visiting Assistant Professor, M.B.A., University of Southern Mississippi, 1968.  
**Quintenz, Constance**, Academic Adviser, B.S., Southern Illinois University, 1975.  
**Reeder, Ronald C.**, Visiting Assistant Professor, M.S., in Ed., Southern Illinois University, 1971.  
**Richard, Harold**, Associate Professor, Ed.D., Pennsylvania State University, 1976.  
**Robb, James A.**, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1974.  
**Slaney, Fiona**, Assistant Professor, Ph.D., Ohio State University, 1972.  
**Soderstrom, Ruth**, Academic Adviser, *Emerita*, M.S., New York University, 1939.  
**Svec, Christine L.**, Research Project Specialist, M.S., Southern Illinois University, 1975.  
**Tregoning, Ruby**, Academic Adviser, M.S., Southern Illinois University, 1977.  
**Vitello, Elaine**, Associate Professor, Ph.D. Southern Illinois University, 1977.  
**Walton, Gary**, Visiting Assistant Professor, M.A., Webster College,

## Aerospace Studies

**Crehan, James E.**, Lt. Colonel, Adjunct Professor.  
**Dewan, Edward W.**, SSgt, Adjunct Instructor.  
**Hall, Jacquelin M.**, SSgt, Adjunct Instructor.  
**Leal, Samuel D.**, TSgt, Adjunct Instructor.  
**Murray, William R.** Captain, Adjunct Assistant Professor.  
**Van Rossum, Charles F.**, Captain, Adjunct Assistant Professor.  
**Zwally, Peter**, Captain, Adjunct Assistant Professor.

## Agribusiness Economics (School of Agriculture)

**Beaulieu, Jeffrey**, Assistant Professor, Ph.D., Iowa State University, 1984.  
**Beck, Roger**, Assistant Professor, Ph.D., Pennsylvania State University, 1977.  
**Eberle, Phillip**, Assistant Professor, Ph.D., Iowa State University, 1983.  
**Harris, Kim**, Assistant Professor, Ph.D., University of Illinois, 1985.  
**Herr, William McD.**, Professor, Ph.D., Cornell University, 1954.  
**Keeppe, Wendell E.**, Professor, *Emeritus*, Ph.D., Cornell University, 1938.  
**Kraft, Steven E.**, Associate Professor, Ph.D., Cornell University, 1980.  
**Solverson, Lyle**, Associate Professor, Ph.D., University of Wisconsin, 1967.  
**Wills, Walter J.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1952.

## Agriculture Education and Mechanization

(School of Agriculture)

**Benton, Ralph A.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1955.  
**Doerr, William A.**, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1973.  
**Legacy, James**, Professor, Ph.D., Cornell University, 1976.  
**Patterson, Richard J.**, Assistant Professor, M.S., Michigan State University, 1969.  
**Reneau, Fred W.**, Associate Professor, Ed.D., Virginia Tech, 1979.  
**Stitt, Thomas R.**, Professor, Ph.D., Ohio State University, 1967.  
**Wolff, Robert L.**, Professor, Ph.D., Louisiana State University, 1971.  
**Wood, Eugene S.**, Professor, *Emeritus*, Ed.D., University of Missouri, 1958.



## Allied Health and Public Services (School of Technical Careers)

- Adler, Andrew**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.  
**Aikens, William**, Adjunct Instructor, Mortuary Science.  
**Aly, Ralph**, Adjunct Instructor, Mortuary Science.  
**Angelis, Jane**, Assistant Instructor, Allied Health Careers Specialties.  
**Aukamp, Donna L.**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Bachuss, James**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Baker, Carole**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.  
**Barker, Kevin**, Adjunct Instructor, Allied Health Careers Specialties, RRT, RCPT.  
**Beaver, Shirley**, Assistant Professor, Dental Hygiene, RDH, M.S., University of Iowa, 1971.  
**Belcke, Martin**, Adjunct Instructor, Mortuary Science.  
**Bhate, Dharmashi**, Adjunct Associate Professor, Allied Health Careers Specialties, M.D.  
**Bishop, Michael Lewis**, Adjunct Instructor, Allied Health Careers Specialties, NMT.  
**Bollman, Jill**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Bondioli, Vicki**, Adjunct Instructor, Allied Health Careers Specialties, RN.  
**Boulanger, Jay**, Adjunct Instructor, Mortuary Science.  
**Branson, Bonnie**, Assistant Professor, Dental Hygiene, RDH, M.S., Southern Illinois University, 1983.  
**Brookman, Marilyn**, Adjunct Instructor, Allied Health Careers Specialties.  
**Bush, Thomas**, Adjunct Instructor, Physical Therapist Assistant, PT.  
**Champion, Darrell E.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Cheatum, Janet L.**, Instructor, Physical Therapist Assistant, M.S., Southern Illinois University, 1985.  
**Connelly, Peter**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Connor, Susan**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Corzine, David**, Adjunct Instructor, Allied Health Careers Specialties, RT.  
**Cunningham, Jimmie C.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Dale, Lynn**, Adjunct Associate Professor, Allied Health Careers Specialties, M.D.  
**DeJong, Janet**, Adjunct Instructor, Physical Therapist Assistant, PT.  
**DeMattei, Ronda**, Assistant Professor, Dental Hygiene, RDH, M.S., Southern Illinois University, 1986.  
**DeVaul, Jacquelyn**, Adjunct Instructor, Dental Hygiene, RDH.  
**Diedrick, Rebecca**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Doherty, Daniel J.**, Adjunct Instructor, Allied Health Careers Specialties.  
**Eaton, Scott**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Elliott, James R.**, Associate Professor, Dental Hygiene, RDH, D.D.S., University of Tennessee, 1953; M.S., Ohio State College of Dentistry, 1962.  
**Ellis, Marilyn**, Adjunct Instructor, Allied Health Careers Specialties.  
**Elmore, Judy**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Enterman, Cynthia Jo**, Assistant Professor, Dental Hygiene, RDH, M.S., Southern Illinois University, 1980.  
**Erickson, Kathy**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.  
**Etherton, Edward E.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Fager, Prosper**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Froelich, William**, Adjunct Instructor, Mortuary Science.  
**Fulton, George**, Adjunct Instructor, Mortuary Science.  
**Gilliam, Mary Frances**, Adjunct Instructor, Allied Health Careers Specialties.  
**Gooden, Regina T.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Green, Rita L.**, Visiting Instructor, Dental Hygiene, RDH.  
**Grupe, Terance**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Hatton, Barkley**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.  
**Having, Karen**, Adjunct Instructor, Allied Health Careers Specialties, RT.  
**Hees, Alice Jane**, Assistant Professor, Nursing, RN, M.S., University of Colorado, 1960.  
**Herr, Robert Charles**, Adjunct Instructor, Mortuary Science.  
**Hertz, Donald G.**, Associate Professor, Mortuary Science and Funeral Service, Ed.M., University of Oklahoma, 1953.  
**Hille, Sally**, Adjunct Instructor, Dental Hygiene, RDH.  
**Hillebrenner, Lynda**, Assistant Professor, Allied Health Careers Specialties, RRT, M.S., Southern Illinois University, 1985.  
**Huffman, William Nyle**, Adjunct Instructor, Mortuary Science.  
**Hughes, Larry**, Adjunct Instructor, Mortuary Science.  
**Ijams, Kayleonne**, Assistant Professor, Dental Technology, CDT, M.A., Southern Illinois University, 1980.

- Irvin, Larry**, Adjunct Instructor, Mortuary Science.
- Jefferies, Danny P.**, Assistant Professor, Dental Hygiene, RDH, M.S., University of North Carolina, 1986.
- Jensen, Catherine**, Assistant Professor, Dental Hygiene, RDH, M.A., Morehead State University, 1980.
- Jensen, Steven**, Assistant Professor, Allied Health Careers Specialties, ASRT, M.S.H.Ed., Morehead State University, 1979.
- Johnson, Donald**, Adjunct Instructor, Mortuary Science.
- Jones, Wade**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Kelso, James Ellis**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.
- Kerr, Larry J.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Ketter, Shirley**, Adjunct Instructor, Allied Health Careers Specialties, RN.
- Kimondollo, Pius**, Adjunct Instructor, Dental Technology, CDT.
- Laake, Dennis J.**, Associate Professor, Dental Technology, CDT, M.S.Ed., Southern Illinois University, 1973.
- Lambert, Wendell**, Adjunct Instructor, Mortuary Science.
- Lawson, Carolyn**, Adjunct Instructor, Dental Hygiene, RDH.
- Leynaud, Donald**, Adjunct Instructor, Allied Health Careers Specialties.
- Logan, William**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Luttmers, Pamela**, Adjunct Instructor, Allied Health Careers Specialties.
- Mabry, Calvin**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.
- Maddox, Debra**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Marks, Glenda**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Markwell, Lee**, Adjunct Instructor, Mortuary Science.
- McMurry, William**, Visiting Associate Professor, Dental Hygiene, D.D.S., University of Missouri at Kansas City, 1950, Ph.D., Pacific College, 1983.
- Meister, John F.**, Adjunct Instructor, Allied Health Careers Specialties.
- Moberly, Michael**, Assistant Professor, Law Enforcement, M.A., Indiana University, 1981.
- Moore, Michele**, Adjunct Instructor, Physical Therapist Assistant, RPT.
- Morgan, Frederic L.**, Associate Professor and *Director*, Allied Health and Public Services Division, Ed.D., Ball State University, 1969.
- Morgan, Stephen E.**, Adjunct Instructor, Mortuary Science.
- Ness, James**, Assistant Professor, Law Enforcement, M.S., Southern Illinois University, 1978.
- Newberry, Valerie**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Nudo, David**, Adjunct Instructor, Allied Health Careers Specialties.
- O'Brien, Thomas**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Okita, Ted Y.**, Associate Professor, Physical Therapist Assistant, RPT, M.A., Northwestern University, 1964.
- Pace, John**, Adjunct Instructor, Allied Health Careers Specialties, RRT.
- Pacey, Richard**, Adjunct Instructor, Mortuary Science.
- Pacholski, Phyllis**, Adjunct Instructor, Physical Therapist Assistant, RPT.
- Pano, Eddie**, Adjunct Instructor, Allied Health Careers Specialties, CRTT, CPT.
- Pape, Carolyn D.**, Assistant Professor, Physical Therapist Assistant, RPT, M.S., Southern Illinois University, 1983.
- Pardus, James**, Adjunct Instructor, Physical Therapist Assistant, RPT.
- Parks, Philip**, Adjunct Instructor, Mortuary Science.
- Patrick, Wendy**, Adjunct Instructor, Dental Hygiene, RDH.
- Paulk, Marilyn**, Assistant Professor, Dental Hygiene, RDH, B.S., Southern Illinois University, 1975.
- Pearson, Stanley**, Assistant Professor, Allied Health Careers Specialties, RRT, B.S., Central Michigan University, 1970.
- Pettett, Herbert**, Adjunct Instructor, Mortuary Science.
- Pillatsch, Craig**, Adjunct Instructor, Mortuary Science.
- Pirmann, Peter**, Adjunct Associate Professor, Dental Hygiene, D.D.M.
- Polgar, Susan**, Adjunct Instructor, Allied Health Careers Specialties.
- Polk, Paula**, Adjunct Instructor, Mortuary Science.
- Poston, George H.**, Associate Professor, Mortuary Science and Funeral Service, M.S., Southern Illinois University, 1977.
- Provinzano, John**, Adjunct Instructor, Allied Careers Specialties, RRT.
- Pyatt, Richard**, Adjunct Instructor, Mortuary Science.
- Ragsdale, Michael**, Adjunct Instructor, Allied Health Careers Specialties, CPFT, RRT.
- Remmert, Gary**, Adjunct Instructor, Mortuary Science.
- Rodney, William**, Adjunct Instructor, Mortuary Science.
- Rossiter, Judith**, Visiting Instructor, Allied Health Careers Specialties, B.S.W., Southern Illinois University, 1980.
- Sanders, Jacquelyn**, Assistant Instructor, Allied Health Careers Specialties, M.A., Southern Illinois University, 1983.
- Saunders, Helen**, Adjunct Instructor, Allied Health Careers Specialties.



**Schilling, John**, Adjunct Instructor, Mortuary Science.  
**Schnirring, Richard**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Schroeder, Paul**, Adjunct Instructor, Mortuary Science.  
**Shellenberger, Gary**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Singh, Arjinderpal**, Adjunct Associate Professor, Allied Health Careers Specialties, M.D.  
**Sloan, David**, Adjunct Associate Professor, Allied Health Careers Specialties, M.D.  
**Smith, Lisa**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Spears, Peggy**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Staab, George J., Jr.**, Adjunct Instructor, Mortuary Science.  
**Stadt, Ronda**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Stille, Miles**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Stone, Robert**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Sutton, Kevin**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Szekely, Rosanne**, Assistant Professor, Allied Health Careers Specialties, ASRT, M.S., Southern Illinois University, 1986.  
**Tate, David**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Taylor, Tracy**, Adjunct Instructor, Mortuary Science.  
**Tiebout, Leigh**, Instructor, Dental Technology, CDS, B.S., Southern Illinois University, 1982.  
**Treece, Carole**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Vannerson, Gilda**, Adjunct Instructor, Allied Health Careers Specialties, CRTT.  
**Vaundry, Gordon**, Adjunct Instructor, Physical Therapist Assistant, RPT.  
**Waks, Dennis Stanford**, Lecturer, Law Enforcement, L.L.M., University of Missouri at Kansas City, 1975.  
**Waleskowski, Peter M.**, Adjunct Instructor, Allied Health Careers Specialties, RRT.  
**Walker, James**, Adjunct Instructor, Mortuary Science.  
**Wampler, Joan**, Adjunct Instructor, Allied Health Careers Specialties, ASRT.  
**Weitekamp, Donald**, Adjunct Instructor, Physical Therapist Assistant, RPT.  
**Westphal, Dwight**, Assistant Professor, Dental Laboratory Technology, CDT, B.S., Southern Illinois University, 1977.  
**Wheeler, Pat**, Adjunct Instructor, Allied Health Careers Specialties.  
**Whitmore, Robert**, Adjunct Instructor, Mortuary Science.  
**Wikoff, Don T.**, Adjunct Instructor, Mortuary Science.  
**Wikoff, Forest G., Jr.**, Adjunct Instructor, Mortuary Science.  
**Wilson, John**, Adjunct Instructor, Mortuary Science.  
**Wimmer, Carl**, Adjunct Instructor, Allied Health Careers Specialties, CRNA.  
**Wingerter, J. Alvalyne**, Adjunct Instructor, Allied Health Careers Specialties, MRA.  
**Winings, John R.**, Associate Professor, Dental Laboratory Technology, M.A., Governors State University, 1972.  
**Wlodarczyk, Renata**, Adjunct Instructor, Dental Hygiene, RDH.  
**Young, Lisa**, Adjunct Instructor, Physical Therapist Assistant, RPT.  
**Youssef, Tawfik**, Adjunct Associate Professor, Allied Health Careers Specialties, M.D.  
**Ziegler, Walter**, Adjunct Instructor, Allied Health Careers Specialties.

## Animal Industries (School of Agriculture)

**Arthur, Robert D.**, Associate Professor, Ph.D., University of Missouri, 1970.  
**Goodman, Bill L.**, Professor, Ph.D., Ohio State University, 1959.  
**Hausler, Carl L.**, Associate Professor, Ph.D., Purdue University, 1970.  
**Hinners, Scott W.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1958.  
**Kammlade, W. G., Jr.**, Associate Professor, *Emeritus*, Ph.D., University of Illinois, 1951.  
**King, Sheryl S.**, Assistant Professor, Ph.D., University of California at Davis, 1984.  
**Kroening, Gilbert H.**, Ph.D., Cornell University, 1965.  
**Lee, D. Dixon, Jr.**, Associate Professor, Ph.D., North Carolina State University, 1970.  
**Olson, Howard H.**, Professor, Ph.D., University of Minnesota, 1952.  
**Reed, Alex**, Professor, *Emeritus*, Ph.D., University of Illinois, 1953.  
**Strack, Louis E.**, Associate Professor, D.V.M., University of Illinois, 1961.  
**Woody, H. Dee.**, Associate Professor, Ph.D., Michigan State University, 1978.  
**Young, Anthony W.**, Professor and *Chairperson*, Ph.D., University of Kentucky, 1969.

## Anthropology (College of Liberal Arts)

**Bender, M. Lionel**, Professor and *Chairperson*, Ph.D., University of Texas at Austin, 1968.  
**Braun, David P.**, Associate Professor, Ph.D., University of Michigan, 1977.  
**Butler, Brian M.**, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1977.

**Corruccini, Robert S.**, Associate Professor, Ph.D., University of California at Berkeley, 1975.  
**Dark, Philip J. C.**, Professor, *Emeritus*, Ph.D., Yale University, 1954.  
**Ford, Susan M.**, Assistant Professor, Ph.D., University of Pittsburgh, 1980.  
**Gumerman, George J.**, Professor, Ph.D., University of Arizona, 1969.  
**Handler, Jerome S.**, Professor, Ph.D., Brandeis University, 1965.  
**Hill, Jonathan**, Assistant Professor, Ph.D., Indiana University, 1983.  
**Kelley, J. Charles**, Professor, *Emeritus*, Ph.D., Harvard University, 1948.  
**MacLachlan, Bruce B.**, Associate Professor, Ph.D., University of Chicago, 1962.  
**Maring, Ester G.**, Assistant Professor, Ph.D., Indiana University, 1969.  
**Maring, Joel M.**, Associate Professor, Ph.D., Indiana University, 1967.  
**Muller, Jon D.**, Associate Professor, Ph.D., Harvard University, 1967.  
**Powell, Shirley L.**, Adjunct Assistant Professor, Ph.D., Arizona State University, 1980.  
**Rands, Robert L.**, Professor, Ph.D., Columbia University, 1952.  
**Riley, Carroll L.**, Distinguished Professor, Ph.D., University of New Mexico, 1952.  
**Taylor, Walter W.**, Professor, *Emeritus*, Ph.D., Harvard University, 1943.

## Applied Technologies (School of Technical Careers)

**Beauchamp, Clarence**, Assistant Professor, *Emeritus*, M.S., University of Wisconsin, Stout, 1949.  
**Cash, Joe R.**, Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1970.  
**Crenshaw J. Howard**, Instructor, *Emeritus*, Mathematics and Science, M.S., University of Illinois, 1940.  
**Galloy, Michael**, Assistant Professor, Construction, M.S.Ed., Southern Illinois University, 1984.  
**Greer, Jack**, Assistant Professor, Automotive Technology, B.S., Southern Illinois University, 1974.  
**Harbison, James L.**, Instructor, *Emeritus*, Mathematics and Science, M.S., University of Illinois, 1940.  
**Hoyle, Orville Glenn**, Instructor, *Emeritus*, Tool and Manufacturing Technology, B.Ed., Western Illinois University, 1931.  
**Ingram, Mark B.**, Visiting Instructor, Automotive Technology, A.A.S., Southern Illinois University, 1986.  
**Jones, Paul**, Instructor, *Emeritus*, Automotive Technology.  
**Kazda, Joseph G.**, Assistant Professor, Automotive Technology, M.S.Ed., Southern Illinois University, 1965.  
**Lampman, Duncan**, Associate Professor, *Emeritus*, Construction Technology and Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1956.  
**McDonald, James H.**, Instructor, *Emeritus*, Automotive Technology, B.S.Ed., Central Missouri State University, 1948.  
**Meade, John L.**, Visiting Instructor, Automotive Technology, B.S., Southern Illinois University, 1985.  
**Morris, Michael**, Instructor, Automotive Technology, A.A.S., Texas State Technical Institute, 1973.  
**Muhich, Frank W.**, Associate Professor, *Emeritus*, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1957.  
**Naas, James**, Assistant Professor, Construction Technology, M.S., Southern Illinois University, 1983.  
**Osborn, Harold W.**, Assistant Professor, *Emeritus*, Construction Technology, M.S.Ed., Southern Illinois University, 1960.  
**Ray, O. B.**, Instructor, *Emeritus*, Automotive Technology, B.S., Murray State University, 1934.  
**Romack, Charles**, Assistant Professor, Automotive Technology, B.S., Southern Illinois University, 1965.  
**Runkle, Lewis C.**, Assistant Professor, *Emeritus*, Automotive Technology, B.S., Southern Illinois University, 1965.  
**Sanders, Eugene**, Assistant Professor, Tool and Manufacturing Technology, B.S., Southern Illinois University, 1956.  
**Simon, Ernest J.**, Professor, *Emeritus*, M.S., University of Illinois, 1936.  
**Simpson, Jerry**, Assistant Professor, Automotive Technology, M.S., Colorado State University, 1966.  
**Soderstrom, Harry R.**, Professor, Tool and Manufacturing Technology, M.S., Bradley University, 1952.  
**Staley, Glenn Lamb**, Instructor, *Emeritus*, Construction Technology, M.S., Southern Illinois University, 1976.



- Traylor, George Lelon**, Associate Professor, *Emeritus*, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1965.
- Tregoning, Philip**, Assistant Professor, Tool and Manufacturing Technology, M.S.Ed., Southern Illinois University, 1965.
- White, James E.**, Assistant Professor, Automotive Technology, B.S.Ed., Southern Illinois University, 1961.
- Willey, Lucian D.**, Associate Professor, *Emeritus*, Automotive Technology, B.Ed., Western Illinois University, 1936.

## Army Military Science

- Azbill, William G.**, Adjunct Assistant Professor, B.S., Eastern New Mexico University, 1972.
- Conley, Richard A.**, Adjunct Instructor.
- Faison, Arthur R.**, Adjunct Assistant Professor, B.A., City University of New York, 1973.
- Fleener, Larry D.**, Adjunct Professor and *Chairperson*, M.S., Georgia State University, 1973.
- Gough, Michael J.**, Adjunct Assistant Professor, B.S., Indiana University, 1975.
- Parker, BobbyGirl**, Adjunct Instructor.
- Pruett, Bobby G.**, Adjunct Instructor.
- Thomas, Dwight P.**, Adjunct Assistant Professor, M.B.A., Duke University, 1979.

## Art (College of Communications and Fine Arts)

- Abrahamson, Roy E.**, Associate Professor, Ed.D., Columbia University, 1965.
- Addington, Aldon M.**, Associate Professor, M.F.A., Cranbrook Academy of Art, 1966.
- Archer, Richard E.**, Assistant Professor, M.S., Governors State University, 1979.
- Barone, Violet Trovillion**, Assistant Professor, *Emerita*, M.A., George Peabody College for Teachers, 1955.
- Bernstein, Lawrence A.**, Associate Professor, M.F.A., Cranbrook Academy of Art, 1953.
- Boysen, Bill H.**, Associate Professor, M.F.A., University of Wisconsin, 1966.
- Briggs, Larry S.**, Associate Professor, B.F.A., University of Oklahoma, 1956.
- Busch, W. Larry**, Assistant Professor, M.S., Southern Illinois University, 1970.
- Chapman, Gretel**, Associate Professor, Ph.D., University of Chicago, 1964.
- Covington, Patricia Beene**, Assistant Professor, Ph.D., Southern Illinois University, 1980.
- Deller, Harris**, Associate Professor, M.F.A., Cranbrook Academy of Art, 1973.
- Donnelly, Brian**, Assistant Professor, M.F.A., Rhode Island School of Design, 1980.
- Feldman, Joel B.**, Associate Professor, M.F.A., Indiana University, 1967.
- Fink, Herbert L.**, Distinguished Professor, M.F.A., Yale University, 1958.
- Greenfield, Sylvia R.**, Professor, M.F.A., University of Colorado, 1967.
- Johnson, Evert A.**, Lecturer, M.A., University of Iowa, 1954.
- Kington, L. Brent**, Professor and *Director*, M.F.A., Cranbrook Academy of Art, 1961.
- Lawson, Elnora**, Instructor, *Emerita*, B.Ed., Southern Illinois University, 1936.
- Lintault, M. Joan**, Associate Professor, M.F.A., Southern Illinois University, 1962.
- Mavigliano, George J.**, Associate Professor, M.A., Northern Illinois University, 1967.
- Mawdsley, Richard**, Associate Professor, M.F.A., University of Kansas, 1969.
- Onken, Michael O.**, Associate Professor, M.A., Northern Illinois University, 1966.
- Paulson, Robert L.**, Professor, M.F.A., University of Wisconsin, 1967.
- Shay, Edward Holden**, Associate Professor, M.F.A., University of Illinois, 1971.
- Simson, Larry Brent**, Assistant Professor, M.F.A., Michigan State University, 1971.
- Sullivan, James E.**, Associate Professor, M.A., University of California at Los Angeles, 1965.
- Sullivan, Milton F.**, Professor, M.A., Columbia University, 1951.
- Vivian, Ann**, Assistant Professor, M.F.A., Syracuse University, 1984.
- Walsh, Thomas J.**, Professor, M.F.A., University of Michigan, 1962.
- Wood, Dan D.**, Associate Professor, M.A., University of Iowa, 1968.
- Youngblood, Michael S.**, Associate Professor, Ph.D., University of Oregon, 1975.

## Aviation Technologies (School of Technical Careers)

- Birkhead, Larry M.**, Assistant Professor and *Coordinator*, Avionics Technology, B.A., Southern Illinois University, 1978.

- Cannon, Richard H.**, Assistant Professor, Aviation Technology, B.S., Southern Illinois University, 1982.
- Eiff, Gary Marvin**, Instructor, Avionics Technology, B.S., Southern Illinois University, 1982.
- Halverson, Paul David**, Instructor, Aviation Technology, M.S., Central Missouri State University, 1978.
- Kolkmeyer, Robert O.**, Assistant Professor, Aviation Technology, M.S.Ed., Southern Illinois University, 1971.
- Lyon, William Bruce**, Instructor, Aviation Technology, A.A.S., Southern Illinois University, 1973.
- Milton, William Carl**, Instructor, Aviation Technology.
- O'Brian, Benjamin Harrin**, Instructor, Aviation Technology, B.S., University of Akron, 1973.
- Ohman, Lennert R.**, Assistant Professor, Aviation Technology, B.S., University of Illinois, 1964.
- Rodriguez, Charles Louis**, Instructor, Aviation Technology, B.S., Southern Illinois University, 1978.
- Russell, Lewis Glen**, Visiting Instructor, Avionics Technology, M.S.Ed., Southern Illinois University, 1978.
- Sanders, Robert Frank**, Visiting Instructor, B.S., Aviation Technology, 1978.
- Schafer, Joseph Allen**, Associate Professor and *Director*, Aviation Technology, B.S., Lewis College, 1960.
- Staples, Laurence C.**, Assistant Professor and *Coodinator*, Aviation Technology, B.S., Southern Illinois University, 1975.
- Verner, Gerry D.**, Assistant Professor, Aviation Technology, B.S., Southern Illinois University, 1973.

## Botany (College of Science)

- Ashby, William C.**, Professor, Ph.D., University of Chicago, 1950.
- Bissing, Donald R.**, Assistant Professor, Ph.D., Claremont Graduate School, 1976.
- Matten, Lawrence C.**, Professor, Ph.D., Cornell University, 1965.
- Mohlenbrock, Robert H.**, Distinguished Professor, Ph.D., Washington University, 1957.
- Olah, Ladislao V.**, Professor, *Emeritus*, Ph.D., Stephen Tisza University, Hungary, 1934.
- Pappelis, Aristotel J.**, Professor, Ph.D., Iowa State University, 1957.
- Robertson, Philip A.**, Associate Professor, Ph.D., Colorado State University, 1968.
- Schmid, Walter E.**, Professor, Ph.D., University of Wisconsin, 1961.
- Stotler, Barbara C.**, Professor, Ph.D., University of Cincinnati, 1968.
- Stotler, Raymond E.**, Associate Professor, Ph.D., University of Cincinnati, 1968.
- Sundberg, Walter J.**, Associate Professor, Ph.D., University of California, 1971.
- Tindall, Donald R.**, Professor and *Chairperson*, Ph.D., University of Louisville, 1966.
- Ugent, Donald**, Professor, Ph.D., University of Wisconsin, 1966.
- Verduin, Jacob**, Professor, *Emeritus*, Ph.D., Iowa State University, 1947.
- Voigt, John W.**, Professor, Ph.D., University of Nebraska, 1950.
- Yopp, John H.**, Professor, Ph.D., University of Louisville, 1969.

## Center for the Study of Crime, Delinquency, and Corrections (College of Human Resources)

- Alexander, Myrl E.**, Professor, *Emeritus*, LL.D., Manchester College of Indiana, 1956.
- Anderson, Dennis**, Associate Professor, Ed.D., University of Nebraska, 1970.
- Castellano, Thomas C.**, Assistant Professor, Ph.D., State University of New York at Albany, 1986.
- Coughlin, Joseph S.**, Professor, *Emeritus*, M.S.W., University of Wisconsin, 1954.
- Ferdinand, Theodore N.**, Professor and *Chairperson*, Ph.D., University of Michigan, 1961.
- Johnson, Elmer H.**, Distinguished Professor, Ph.D., University of Wisconsin, 1950.
- LeBeau, James L.**, Assistant Professor, Ph.D., Michigan State University, 1978.
- Lorinskis, Robert A.**, Associate Professor, Ph.D., University of Georgia, 1973.
- Matthews, Charles V.**, Associate Professor, M.S., University of Kansas City, 1951.
- Riedel, Marc P.**, Associate Professor, Ph.D., University of Pennsylvania, 1972.
- Robinson, Cyril D.**, Professor, LL.B., Northwestern University, 1952.
- Timm, Howard W.**, Associate Professor, Ph.D., Michigan State University, 1979.
- Wilson, Nanci K.**, Associate Professor, Ph.D., University of Tennessee, 1972.



## Chemistry and Biochemistry (College of Science)

**Arnold, Richard T.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1937.  
**BeMiller, James N.**, Adjunct Professor, Ph.D., Purdue University, 1959.  
**Beyler, Roger E.**, Professor, Ph.D., University of Illinois, 1949.  
**Bolen, D. Wayne**, Professor, Ph.D., Florida State University, 1969.  
**Brown, George E.**, Professor, *Emeritus*, Ph.D., Iowa State University, 1941.  
**Carle, Glenn C.**, Adjunct Assistant Professor, B.S., California State Polytechnic University, 1963.  
**Caskey, Albert L.**, Associate Professor, Ph.D., Iowa State University, 1961.  
**Cox, James A.**, Professor, Ph.D., University of Illinois, 1967.  
**Dunkerton, Lois V.**, Assistant Professor, Ph.D., Cornell University, 1974.  
**Gupta, Ramesh**, Assistant Professor, Ph.D., University of Illinois, 1981.  
**Guyon, John C.**, Professor, Ph.D., Purdue University, 1961.  
**Hadler, Herbert I.**, Professor, Ph.D. University of Wisconsin, 1952.  
**Hadley, Elbert H.**, Professor, *Emeritus*, Ph.D., Duke University, 1940.  
**Hall, J. Herbert**, Professor, Ph.D., University of Michigan, 1959.  
**Hargrave, Paul A.**, Adjunct Professor, Ph.D., University of Minnesota, 1970.  
**Hinckley, Conrad C.**, Professor, Ph.D., University of Texas, 1964.  
**Koropchak, John A.**, Assistant Professor, Ph.D., University of Georgia, 1980.  
**Koster, David F.**, Professor, Ph.D., Texas A & M University, 1965.  
**Lewis-Bevan, Wyn**, Assistant Professor, Ph.D., Cambridge University, 1983.  
**Meyers, Cal Y.**, Distinguished Professor, Ph.D., University of Illinois, 1951.  
**Neckers, J. W.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1927.  
**Phillips, John B.**, Associate Professor, Ph.D., University of Arizona, 1977.  
**Scheiner, Steven I.**, Associate Professor, Ph.D., Harvard University, 1976.  
**Schmit, Joseph**, Associate Professor, Ph.D., Purdue University, 1971.  
**Schmulbach, C. David**, Professor, Ph.D., University of Illinois, 1958.  
**Shriver, John W.**, Assistant Professor, Ph.D., Case Western University, 1977.  
**Smith, Gerard V.**, Professor, Ph.D., University of Arkansas, 1959.  
**Trimble, Russell F.**, Professor, Ph.D., Massachusetts Institute of Technology, 1951.  
**Tyrrell, James**, Professor and *Chairperson*, Ph.D., University of Glasgow, 1963.  
**Van Lente, Kenneth A.**, Professor, *Emeritus*, Ph.D., University of Michigan, 1931.  
**Woodruff, Michael L.**, Assistant Professor, Ph.D., University of Wisconsin, 1978.  
**Wotiz, John H.**, Professor, Ph.D., Ohio State University, 1948.

## Cinema and Photography (College of Communications and Fine Arts)

**Blumenberg, Richard M.**, Professor, Ph.D., Ohio University, 1969.  
**Bolton, Richard L., Jr.**, Assistant Professor, M.F.A., Cranbrook Academy, 1981.  
**Boruszkowski, Lilly A.**, Assistant Professor, M.F.A., Northwestern University, 1979.  
**Cocking, Loren D.**, Assistant Professor, M.A., Ohio State University, 1969.  
**Covell, Michael D.**, Assistant Professor, M.F.A., Ohio University, 1975.  
**Gilmore, David A.**, Associate Professor, M.F.A., Ohio University, 1969.  
**Horrell C. William**, Professor, *Emeritus*, Ed.D., Indiana University, 1955.  
**Kolb, Gary P.**, Associate Professor, M.F.A., Ohio University, 1977.  
**Mercer, John**, Professor, *Emeritus*, University of Nebraska, 1952.  
**Paine, Frank**, Associate Professor, *Emeritus*, B.S., Iowa State University, 1950.  
**Powell, W. Duane**, Assistant Professor, M.F.A., University of Illinois, 1977.  
**Swedlund, Charles A.**, Professor, M.S., Illinois Institute of Technology, 1961.  
**Williams, Tony**, Assistant Professor, Ph.D., University of Manchester, 1974.

## Civil Engineering and Mechanics (College of Engineering and Technology)

**Cook, Echol E.**, Professor, Ph.D., Oklahoma State University, 1970.  
**Craddock, James N.**, Associate Professor, Ph.D., University of Illinois at Urbana-Champaign, 1979.

**Davis, Philip**, Professor and *Chairperson*, Ph.D., University of Michigan, 1963.  
**DeVantier, Bruce**, Assistant Professor, Ph.D., University of California at Davis, 1983.  
**Evers, James**, Associate Professor, Ph.D., University of Alabama, 1969.  
**Kassimali, Aslam**, Associate Professor, Ph.D., University of Missouri, 1976.  
**Nowacki, C. Raymond**, Associate Professor, Ph.D., University of Illinois at Urbana-Champaign, 1965.  
**Ponce-Campos, C. David**, Associate Professor, Ph.D., University of Michigan, 1978.  
**Puri, Vijay K.**, Assistant Professor, Ph.D., University of Missouri at Rolla, 1984.  
**Ray, Bill T.**, Assistant Professor, Ph.D., University of Missouri at Rolla, 1984.  
**Rubayi, Najim**, Professor, Ph.D., University of Wisconsin, 1966.  
**Sami, Sedat**, Professor, Ph.D., University of Iowa, 1966.  
**Shrivastava, Pankaj**, Lecturer, M.S., Southern Illinois University, 1983.  
**Wright, Maurice A.**, Professor, Ph.D., University of Wales, 1962.  
**Yen, Shing-Chung**, Assistant Professor, Ph.D., Virginia Polytechnic Institute and State University, 1984.

## Communication Disorders and Sciences (College of Communications and Fine Arts)

**Anderson, John O.**, Professor, Ph.D., Ohio State University, 1950.  
**Bermejo, Juan J.**, Assistant Professor, Ph.D., Ohio University, 1984.  
**Blache, Stephen E.**, Associate Professor, Ph.D., Ohio State University, 1970.  
**Brackett, I. P.**, Professor, *Emeritus*, Ph.D., Northwestern University, 1947.  
**Brutten, Gene J.**, Professor, Ph.D., University of Illinois, 1957.  
**Hoshiko, Michael S.**, Professor, Ph.D., Purdue University, 1957.  
**Lehr, Robert**, Associate Professor, Ph.D., Baylor University, 1971.  
**Robey, Randall R.**, Assistant Professor, Ph.D., Ohio University, 1985.  
**Ruder, Kenneth F.**, Professor and *Chairperson*, Ph.D., University of Florida, 1969.  
**Schultz, Martin C.**, Professor, Ph.D., University of Iowa, 1955.

## Community Development

**Bhattacharyya, Jnanabrota**, Associate Professor and *Director*, Ph.D., University of Delhi, India, 1969.  
**Denise, Paul S.**, Assistant Professor, Ph.D., University of California at Berkeley, 1974.  
**Perk, H. F. W.**, Lecturer, A.B., University of California at Los Angeles, 1951.  
**Poston, Richard W.**, Professor, *Emeritus*, B.A., University of Montana, 1940.

## Computer Science (College of Liberal Arts)

**Danhof, Kenneth J.**, Professor and *Chairperson*, Ph.D., Purdue University, 1969.  
**Dinsmore, John**, Assistant Professor, Ph.D., University of California at San Diego, 1979.  
**Garg, Anil**, Assistant Professor, Ph.D., University of Toronto, 1984.  
**Mark, Abraham M.**, Professor, *Emeritus*, Ph.D., Cornell University, 1947.  
**McGlinn, Robert**, Assistant Professor, Ph.D., Southern Illinois University, 1976.  
**Pagan, Frank G.**, Associate Professor, Ph.D., University of Toronto, 1972.  
**Srimani, Pradip**, Associate Professor, Ph.D., University of Calcutta, 1978.  
**Tejwani, Yogendra**, Assistant Professor, Ph.D., University of Arkansas, 1983.  
**Varol, Yaakov**, Associate Professor, Ph.D., University of Wyoming, 1971.  
**Wright, William E.**, Associate Professor, D.Sc., Washington University, 1972.  
**Zargham, Mehdi R.**, Assistant Professor, Ph.D., Michigan State University, 1983.

## Curriculum, Instruction, and Media (College of Education)

**Aikman, Arthur L.**, Professor, Ph.D., Southern Illinois University, 1965.  
**Alston, Melvin O.**, Professor, *Emeritus*, Ed.D., Columbia University, 1945.  
**Appleby, Bruce C.**, Associate Professor, Ph.D., University of Iowa, 1967.  
**Barrette, Pierre**, Associate Professor, Ed.D., University of Massachusetts, 1971.  
**Bauner, Ruth E.**, Associate Professor, Ph.D., Southern Illinois University, 1978.  
**Becker, Jerry P.**, Professor, Ph.D., Stanford University, 1967.



- Bedient, Douglas, Associate Professor, Ph.D., Southern Illinois University, 1971.
- Boykin, Arsene O., Associate Professor, *Emerita*, Ed.D., University of Illinois, 1964.
- Bradfield, Joyce M., Instructor, *Emerita*, M.A., George Peabody College for Teachers, 1946.
- Bradfield, Luther E., Professor, *Emeritus*, Ed.D., Indiana University, 1953.
- Brod, Ernest E., Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1953.
- Brown, Bill, Instructor, *Emeritus*, M.Ed., University of Missouri, 1946.
- Buser, Margaret, Instructor, M.S.Ed., Indiana University, 1966.
- Butts, Gordon K., Professor, *Emeritus*, Ed.D., Indiana University, 1956.
- Byrd, David M., Associate Professor, Ph.D., Syracuse University, 1980.
- Casey, John P., Professor, *Emeritus*, Ed.D., Indiana University, 1963.
- Copenhaver, Ron W., Associate Professor, Ed.D., Indiana University, 1978.
- Cox, Dorothy, Assistant Professor, Ph.D., Southern Illinois University, 1976.
- Dale, Doris C., Professor, D.L.S., Columbia University, 1968.
- DeWeese, Jewel V., Instructor, *Emerita*, M.S.Ed., Southern Illinois University, 1971.
- Dixon, Billy G., Associate Professor and *Chairperson*, Ph.D., Southern Illinois University, 1967.
- Eddleman, E. Jacqueline, Associate Professor, Ph.D., Southern Illinois University, 1970.
- Edwards, Troy W., Professor, *Emeritus*, Ed.D., Indiana University, 1954.
- Erickson, Lawrence, Professor, Ph.D., University of Wisconsin, 1972.
- Fletcher, Kathleen G., Associate Professor, *Emerita*, M.S., University of Illinois, 1947.
- Gulley, S. Beverly, Associate Professor, Ph.D., Southern Illinois University, 1974.
- Hill, Margaret K., Professor, *Emerita*, Ed.D., Boston University, 1948.
- Hungerford, Harold R., Professor, Ph.D., Southern Illinois University, 1970.
- Jacko, Carol, Associate Professor, Ph.D., University of Pittsburgh, 1974.
- Jackson, James, Associate Professor, Ph.D., University of Wisconsin, 1976.
- Jackson, Michael, Associate Professor, Ed.D., University of Florida, 1971.
- Jones, Dan R., Associate Professor, Ed.D., Indiana University, 1978.
- Jones, Jennie Y., Assistant Professor, A.M., University of Illinois, 1949.
- Karmos, Ann, Associate Professor, Ph.D., Southern Illinois University, 1975.
- Killian, Joyce E., Associate Professor, Ph.D., Pennsylvania State University, 1980.
- Klasek, Charles B., Professor, Ph.D., University of Nebraska, 1971.
- Lacey, Jerome, Assistant Professor, Ph.D., Southern Illinois University, 1975.
- Lamb, Morris L., Associate Professor, Ed.D., University of Oklahoma, 1970.
- Lee, J. Murray, Professor, *Emeritus*, Ph.D., Columbia University, 1934.
- Leming, James, Associate Professor, Ph.D., University of Wisconsin, 1973.
- Lindberg, Dormalee H., Professor, Ed.D., University of Missouri, Columbia, 1969.
- Lipsey, William, Lecturer, *Emeritus*, Ed.D., Northwestern University, 1952.
- Malone, Willis E., Professor, *Emeritus*, Ph.D., Ohio State University, 1950.
- Matthias, Margaret, Associate Professor, Ph.D., Southern Illinois University, 1972.
- McIntyre, D. John, Associate Professor, Ed.D., Syracuse University, 1977.
- Meyer, Edra T., Instructor, *Emerita*, M.S., Southern Illinois University, 1956.
- Moore, Eryn E., Assistant Professor, Ph.D., Southern Illinois University, 1976.
- Nelson, JoAnn, Assistant Professor, Ph.D., University of Illinois, 1980.
- Norris, William, Associate Professor, Ed.D., Indiana University, 1973.
- Paige, Donald, D., Professor, Ed.D., Indiana University, 1966.
- Ponton, Melva F., Assistant Professor, M.S., University of Illinois, 1951.
- Pope, Cedric A., Assistant Professor, *Emeritus*, Ed.D., University of Northern Colorado, 1959.
- Quisenberry, James D., Associate Professor, Ph.D., Indiana University, 1972.
- Quisenberry, Nancy L., Professor, Ed.D., Indiana University, 1971.
- Randolph, Victor, Professor, *Emeritus*, Ph.D., George Peabody College for Teachers, 1942.
- Rogers, Shirley M., Assistant Professor, M.S.Ed., Southern Illinois University, 1961.
- Samford, Clarence, Professor, *Emeritus*, Ph.D., New York University, 1940.
- Scheer, Janet K., Associate Professor, Ph.D., Arizona State University, 1977.
- Seiferth, Berniece B., Professor, Ed.D., University of Missouri, 1955.
- Shelton, Vivian H., Instructor, M.S.Ed., Southern Illinois University, 1965.
- Shepherd, Terry R., Associate Professor, Ph.D., University of Illinois, 1971.
- Shrock, Sharon A., Assistant Professor, Ph.D., Indiana University, 1979.
- Sloan, Fred A., Professor, Ed.D., George Peabody College of Vanderbilt University, 1959.
- Smith, Lynn C., Assistant Professor, Ph.D., University of Georgia, 1984.
- Solliday, Michael, Associate Professor, Ph.D., Southern Illinois University, 1975.
- Spigle, Irving S., Associate Professor, *Emeritus*, Ed.D., Indiana University, 1955.
- Stephens, Clarence, Professor, *Emeritus*, Ed.D., Indiana University, 1955.
- Tomera, Audrey, Professor, Ph.D., Southern Illinois University, 1973.
- Treece, Madelyn, Assistant Professor, *Emerita*, A.M., University of Chicago, 1936.
- Wendt, Paul R., Professor, *Emeritus*, Ph.D., University of Minnesota, 1948.
- Winsor, Donald, Associate Professor, *Emeritus*, Ed.D., University of Florida, 1961.
- Wise, Kevin, Assistant Professor, Ed.D., University of Georgia, 1983.

Wood, Ruth B., Instructor, *Emerita*, M.S., University of Illinois, 1948.

## Economics (College of Liberal Arts)

- Chun, Youngsub, Assistant Professor, Ph.D., University of Rochester, 1986.  
 Edelman, Milton T., Professor, *Emeritus*, Ph.D., University of Illinois, 1951.  
 Ellis, Robert J., Jr., Associate Professor and *Chairperson*, Ph.D., University of Virginia, 1966.  
 Fare, Rolf, Professor, Docent., University of Lund, 1976.  
 Foran, Terry G., Associate Professor, Ph.D., Pennsylvania State University, 1971.  
 Grabowski, Richard, Associate Professor, Ph.D., University of Utah, 1977.  
 Grosskopf, Shawna, Associate Professor, Ph.D., Syracuse University, 1977.  
 Hand, George H., Professor, *Emeritus*, Ph.D., Princeton University, 1939.  
 Hickman, C. Addison, Professor, *Emeritus*, Vandever Chair of Economics, Ph.D., University of Iowa, 1942.  
 Kim, Yoonbai, Assistant Professor, Ph.D., Stanford University, 1985.  
 Layer, Robert G., Professor, *Emeritus*, Ph.D., Harvard University, 1952.  
 Margaritis, Dimitrios, Assistant Professor, Ph.D., SUNY, Buffalo, 1982.  
 Mitchell, Thomas, Assistant Professor, Ph.D., Brown University, 1983.  
 Morrison, Vernon G., Professor, *Emeritus*, Ph.D., University of Nebraska, 1961.  
 Myers, John G., Professor, Ph.D., Columbia University, 1961.  
 Norris, Mary, Assistant Professor, Ph.D., University of Maryland, 1985.  
 Primont, Daniel A., Professor, Ph.D., University of California at Santa Barbara, 1970.  
 Sawyer, Carl, Assistant Professor, Ph.D., University of Michigan, 1985.  
 Sharma, Subhash, Assistant Professor, Ph.D., University of Kentucky, 1983.  
 Shields, Michael P., Associate Professor, Ph.D., University of Utah, 1975.  
 Takayama, Akira, Professor, Vandever Chair of Economics, Ph.D., University of Rochester, 1962.  
 Trescott, Paul B., Professor, Ph.D., Princeton University, 1954.  
 Wiegand, G. C., Professor, *Emeritus*, Ph.D., Northwestern University, 1950.

## Educational Administration and Higher Education

(College of Education)

- Adams, Frank C., Professor, *Emeritus*, Ph.D., Southern Illinois University, 1962.  
 Bach, Jacob O., Professor, *Emeritus*, Ph.D., University of Wisconsin, 1951.  
 Bracewell, George, Professor, *Emeritus*, Ed.D., Washington University, 1952.  
 Brammell, Paris R., Professor, *Emeritus*, Ph.D., University of Washington, 1930.  
 Bryant, Royce R., Professor, *Emeritus*, D.Ed., Washington University, 1952.  
 Buser, Robert L., Professor, Ed.D., Indiana University, 1966.  
 Caldwell, Oliver J., Professor, *Emeritus*, M.S., Oberlin College, 1927.  
 Casebeer, Arthur L., Professor, Ed.D., Oregon State University, 1963.  
 Clark, Elmer J., Professor, Ph.D., University of Michigan, 1949.  
 Davis, I. Clark, Professor, *Emeritus*, Ed.D., Indiana University, 1956.  
 Dennis, Lawrence J., Professor, Ph.D., Southern Illinois University, 1968.  
 Dingerson, Michael R., Associate Professor, Ph.D., Southern Illinois University, 1974.  
 Duff, Grace H., Assistant Professor, *Emerita*, Ph.D., Southern Illinois University, 1970.  
 Eaton, William E., Professor, Ph.D., Washington University, 1971.  
 Fishback, Woodson W., Associate Professor, *Emeritus*, Ph.D., University of Chicago, 1947.  
 Graham, Jack W., Professor, Ph.D., Purdue University, 1951.  
 Greer, Charles E., Visiting Assistant Professor, Ph.D., Southern Illinois University, 1977.  
 Grinnell, John E., Professor, *Emeritus*, Stanford University, 1934.  
 Hall, James H., Associate Professor, *Emeritus*, Ed.D., George Washington University, 1950.  
 Hawley, John B., Professor, Ph.D., University of Michigan, 1957.  
 Jacobs, Robert, Professor, *Emeritus*, Ed.D., Wayne State University, 1949.  
 Jellen, Hans G., Assistant Professor, Ph.D., University of Virginia, 1981.  
 Jung, Loren B., Professor, *Emeritus*, Ph.D., Southern Illinois University, 1969.  
 Kaiser, Dale E., Professor, Ph.D., University of Illinois, 1963.  
 Keene, Roland, Professor, *Emeritus*, Ph.D., Washington University, 1962.  
 King, John E., Professor, *Emeritus*, Ph.D., Cornell University, 1941.  
 Lean, Arthur E., Professor, *Emeritus*, Ph.D., University of Michigan, 1948.  
 Matthias, William, Associate Professor, Ed.D., University of Illinois, 1964.  
 McKenzie, William R., Professor, *Emeritus*, Ed.D., University of Denver, 1953.



**Merwin, Bruce W.**, Professor, *Emeritus*, Ph.D., University of Kansas, 1929.  
**Miller, Harry G.**, Professor, Ed.D., University of Nebraska, 1970.  
**Moore, Malvin E.**, Professor, *Emeritus*, Ed.D., George Peabody College for Teachers, 1959.  
**Morrill, Paul H.**, Professor, *Emeritus*, Ph.D., Northwestern University, 1956.  
**Neal, Charles D.**, Professor, *Emeritus*, Ed.D., Indiana University, 1948.  
**Parker, James C.**, Professor and *Chairperson*, Ed.D., University of Tennessee, 1971.  
**Sasse, Edward B.**, Professor, Ph.D., University of Wisconsin, 1966.  
**Shelton, William E.**, Associate Professor, *Emeritus*, Ph.D., University of Chicago, 1950.  
**Spees, Emil R.**, Assistant Professor, Ph.D., Claremont Graduate School, 1969.  
**Stuck, Dean**, Professor, Ph.D., Iowa State University, 1968.  
**Swinburne, Bruce R.**, Associate Professor, Ed.D., Indiana University, 1970.  
**Tolle, Donald J.**, Professor, *Emeritus*, Ed.D., Florida State University, 1957.  
**Verduin, John R., Jr.**, Professor, Ph.D., Michigan State University, 1962.  
**Warren, F. G.**, Professor, *Emeritus*, A.M., University of Chicago, 1928.  
**Wohlwend, Herbert W.**, Associate Professor, Ph.D., Southern Illinois University, 1964.  
**Zimmerman, Elwyn**, Assistant Professor, Ph.D., Michigan State University, 1963.

## Educational Psychology (College of Education)

**Altekruse, Michael K.**, Professor, Ed.D., Indiana University, 1967.  
**Bardo, Harold R.**, Associate Professor, Ph.D., Southern Illinois University, 1972.  
**Beggs, Donald L.**, Professor, Ph.D., University of Iowa, 1966.  
**Bradley, Richard W.**, Professor, Ph.D., University of Wisconsin, 1968.  
**Brown, Beverly**, Assistant Professor, Ph.D., University of Iowa, 1974.  
**Cody, John J.**, Professor and *Chairperson*, Ph.D., University of Wisconsin, 1961.  
**Daniels, M. Harry**, Associate Professor, Ph.D., University of Iowa, 1978.  
**Deichmann, John W.**, Associate Professor, Ph.D., St. Louis University, 1969.  
**DeWeese, Harold L.**, Professor, *Emeritus*, Ed.D., University of Illinois, 1959.  
**Dillon-Sumner, Ronna**, Professor, Ph.D., University of California at Riverside, 1978.  
**Elmore, Patricia B.**, Professor, Ph.D., Southern Illinois University, 1970.  
**Goh, David S.**, Professor, Ph.D., University of Wisconsin-Madison, 1973.  
**Graham, Jack W.**, Professor, Ph.D., Purdue University, 1951.  
**Grenfell, John E.**, Professor, Ed.D., Oregon State University, 1966.  
**Karmos, Joseph**, Visiting Professor, Ph.D., Southern Illinois University, 1974.  
**Kelly, Francis J.**, Professor, Ph.D., University of Texas, 1963.  
**Leitner, Dennis**, Associate Professor, Ph.D., University of Maryland, 1975.  
**Lewis, Ernest**, Professor, Ph.D., Southern Illinois University, 1971.  
**Meek, Clinton Roscoe**, Professor, *Emeritus*, Ph.D., George Peabody College for Teachers, 1954.  
**Mouw, John T.**, Professor, Ed.D., University of South Dakota, 1968.  
**Pohlmann, John T.**, Professor, Ph.D., Southern Illinois University, 1972.  
**Prichard, Karen K.**, Assistant Professor, Ph.D., Kent State University, 1981.  
**Renzaglia, Guy A.**, Professor, *Emeritus*, Ph.D., University of Minnesota, 1952.  
**Snowman, Jack**, Associate Professor, Ph.D., Indiana University, 1975.  
**White, Gordon**, Assistant Professor, Ph.D., University of Iowa, 1969.  
**Woehlke, Paula L.**, Associate Professor, Ph.D., Arizona State University, 1973.  
**Yates, J. W.**, Professor, Ed.D., University of Missouri, Columbia, 1951.

## Electrical Engineering (College of Engineering and Technology)

**Begley, David L.**, Associate Professor, Ph.D., University of Missouri at Rolla, 1978.  
**Bose, Tamal**, Visiting Instructor, M.S., Southern Illinois University, 1985.  
**Botros, Nazeih**, Assistant Professor, Ph.D., University of Oklahoma, 1985.  
**Brown, David P.**, Professor and *Chairperson*, Ph.D., Michigan State University, 1961.  
**Daneshdoost, Morteza**, Ph.D., Drexel University, 1984.  
**Dhali, Shirshak**, Assistant Professor, Ph.D., Texas Tech University, 1984.  
**Feiste, Vernold K.**, Associate Professor, Ph.D., University of Missouri at Columbia, 1966.  
**Goben, Charles A.**, Professor, Ph.D., Iowa State University, 1965.  
**Han, Jia-Yuan**, Assistant Professor, Ph.D., Ohio State University, 1985.  
**Hu, C. J.**, Professor, Ph.D., University of Colorado-Boulder, 1966.  
**Manzoul, Mahmond**, Assistant Professor, Ph.D., West Virginia University, 1985.  
**McCalla, Thomas, Jr.**, Associate Professor, Ph.D., Case Western Reserve University, 1969.  
**Mohan, M. Anand**, Associate Professor, Ph.D., Indian Institute of Technology, 1970.  
**Pourboghtrah, Farzad**, Assistant Professor, Ph.D., University of Iowa, 1984.  
**Purcell, Kay**, Visiting Instructor, M.S., Southern Illinois University, 1978.

**Rawlings, Charles A.**, Associate Professor, Ph.D., Southern Illinois University, 1974.  
**Smith, James G.**, Professor, Ph.D., University of Missouri at Rolla, 1967.  
**Thomopoulos, Stelios**, Assistant Professor, Ph.D., State University of New York at Buffalo, 1983.  
**Viswanathan, R.**, Assistant Professor, Ph.D., Southern Methodist University, 1983.

## English (College of Liberal Arts)

**Appleby, Bruce C.**, Professor, Ph.D., University of Iowa, 1967.  
**Benziger, James G.**, Professor, *Emeritus*, Ph.D., Princeton University, 1941.  
**Bernhardt, Stephen A.**, Assistant Professor, Ph.D., University of Michigan, 1981.  
**Black, Rose**, Instructor, *Emerita*, M.A., Ohio State University, 1926.  
**Brown, William J.**, Associate Professor, Ph.D., Duke University, 1966.  
**Burns, Winifred**, Assistant Professor, *Emerita*, M.A., University of Illinois, 1933.  
**Clark, Martha**, Instructor, *Emerita*, A.M., Southern Illinois University, 1953.  
**Cohn, Alan Martin**, Professor, M.S., University of Illinois, 1955.  
**Coleman, E. C.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1936.  
**Collins, K. K.**, Associate Professor, Ph.D., Vanderbilt University, 1976.  
**Dodd, Diana L.**, Assistant Professor, *Emerita*, M.A., Southern Illinois University, 1954.  
**Donow, Herbert S.**, Professor, Ph.D., University of Iowa, 1966.  
**Friend, Jewell A.**, Associate Professor, *Emerita*, Ph.D., Southern Illinois University, 1970.  
**Goodin, George V.**, Associate Professor, Ph.D., University of Illinois, 1962.  
**Griffin, Robert P.**, Associate Professor, Ph.D., University of Connecticut, 1965.  
**Hatton, Thomas J.**, Associate Professor, Ph.D., University of Nebraska, 1966.  
**Hillegas, Mark**, Professor, *Emeritus*, Ph.D., Columbia University, 1957.  
**Hilliard, Lewis J.**, Assistant Professor, M.S.Ed., Southern Illinois University, 1952.  
**Howell, John M.**, Professor, Ph.D., Tulane University, 1963.  
**Hurley, Paul J.**, Professor, Ph.D., Duke University, 1962.  
**James, Rodney**, Associate Professor, M.F.A., University of North Carolina at Greensboro, 1973.  
**Krappe, Edith**, Associate Professor, *Emerita*, Ph.D., University of Pennsylvania, 1953.  
**Kvernes, David M.**, Assistant Professor, Ph.D., University of Minnesota, 1967.  
**Lamb, Mary E.**, Associate Professor, Ph.D., Columbia University, 1976.  
**Lawson, Richard A.** Associate Professor, Ph.D., Tulane University, 1966.  
**Light, James F.**, Professor, Ph.D., Syracuse University, 1953.  
**Lingle, Fred**, Assistant Professor, *Emeritus*, A.M., University of Illinois, 1935.  
**Little, Judy Ruth**, Professor, Ph.D., University of Nebraska, 1969.  
**Martin, Joan Foley**, Assistant Professor, M.A., Southern Illinois University, 1959.  
**McNichols, Edward L.**, Assistant Professor, M.A., University of Detroit, 1958.  
**Miller, Thomas P.**, Assistant Professor, Ph.D., University of Texas at Austin, 1984.  
**Mitchell, Betty Lou**, Assistant Professor, M.A., Southern Illinois University, 1951.  
**Moss, Sidney P.**, Professor, Ph.D., University of Illinois, 1954.  
**Partlow, Robert B., Jr.**, Professor, *Emeritus*, Ph.D., Harvard University, 1955.  
**Peterson, Richard F.**, Professor and *Chairperson*, Ph.D., Kent State University, 1969.  
**Piper, Henry Dan**, Professor, Ph.D., University of Pennsylvania, 1950.  
**Rainbow, R. S.**, Associate Professor, Ph.D., University of Chicago, 1950.  
**Richman, Lois Anne**, Assistant Professor, A.M., University of Illinois, 1962.  
**Rudnick, Hans H.**, Professor, Ph.D., University of Freiburg, Germany, 1966.  
**Schonhorn, Manuel S.**, Professor, Ph.D., University of Pennsylvania, 1963.  
**Simeone, William E.**, Professor, *Emeritus*, Ph.D., University of Pennsylvania, 1950.  
**Simon, Mary C.**, Instructor, *Emerita*, A.M., University of Illinois, 1940.  
**Smith, Gary**, Assistant Professor, Ph.D., Stanford University, 1981.  
**Stibitz, E. Earle**, Professor, *Emeritus*, Ph.D., University of Michigan, 1951.  
**Taylor, Larry E.**, Associate Professor, Ph.D., University of Oklahoma, 1969.  
**Travis, Edna**, Instructor, *Emerita*, M.S.Ed., Southern Illinois University, 1948.  
**Vieth, David Muench**, Professor, Ph.D., Yale University, 1953.  
**Webb, Howard W., Jr.**, Professor, Ph.D., University of Iowa, 1953.  
**Weshinsky, Roy K.**, Assistant Professor, M.S., Southern Illinois University, 1950.

## Finance (College of Business and Administration)

**Davids, Lewis E.**, Professor, *Emeritus*, Ph.D., New York University, 1949.  
**Elsaid, Hussein H.**, Professor, Ph.D., University of Illinois, 1968.  
**Jose, Manuel L.**, Assistant Professor, Ph.D., Virginia Polytechnic Institute, 1983.  
**Kim, Sang-Hoon**, Assistant Professor, Ph.D., University of Wisconsin, 1979.



**Mathur, Iqbal**, Professor and *Chairperson*, Ph.D., University of Cincinnati, 1974.  
**Rangan, Nanda**, Assistant Professor, Ph.D., Texas A&M University, 1986.  
**Stevens, Jerry L.**, Assistant Professor, University of Illinois, 1980.  
**Tyler, R. Stanley**, Associate Professor, J.D., University of Illinois, 1952.  
**Unal, Haluk**, Assistant Professor, Ph.D., Ohio State University, 1985.  
**Vaughn, Donald E.**, Professor, Ph.D., University of Texas, 1961.  
**Waters, Gola E.**, Professor, J.D., University of Iowa, 1957, Ph.D., Southern Illinois University, 1970.

## Food and Nutrition (School of Agriculture)

**Ashraf, Hea-Ran L.**, Assistant Professor, Ph.D., Iowa State University, 1979.  
**Becker, Henrietta**, Lecturer, *Emerita*, M.S., Southern Illinois University, 1964.  
**Endres, Jeannette M.**, Professor, Ph.D., St. Louis University, 1972.  
**Harper, Jenny M.**, Professor, *Emerita*, Ph.D., Cornell University, 1941.  
**Konishi, Frank**, Professor, Ph.D., Cornell University, 1958.  
**Payne, Irene R.**, Professor, Ph.D., Cornell University, 1960.  
**Saldanha, Leila G.**, Visiting Assistant Professor, Ph.D., Kansas State University, 1985.  
**Welch, Patricia**, Assistant Professor, Ph.D., Southern Illinois University, 1982.

## Foreign Languages and Literatures (College of Liberal

Arts)

**Aydt, Judith**, Assistant Professor, M.A., Southern Illinois University, 1966.  
**Bedford, David A.**, Adjunct Assistant Professor and Language Laboratory Director, Ph.D., University of Texas at Austin, 1976.  
**Betz, Frederick**, Professor, Ph.D., Indiana University, 1973.  
**Blazejczyk, Pauline**, Lecturer, M.A., University of Warsaw, 1957.  
**Bork, Albert W.**, Professor, *Emeritus*, Doctor en Letras, National University of Mexico, 1944.  
**Canfield, D. Lincoln**, Professor, *Emeritus*, Ph.D., Columbia University, 1934.  
**Childs, Margaret H.**, Assistant Professor, Ph.D., University of Pennsylvania, 1983.  
**Davis, J. Cary**, Professor, *Emeritus*, Ph.D., University of Chicago, 1936.  
**Giguère, Ronald G.**, Lecturer, Ph.D., University of Connecticut, 1983.  
**Gobert, David L.**, Professor, Ph.D., University of Iowa, 1960.  
**Hartman, Steven Lee**, Associate Professor, Ph.D., University of Wisconsin, 1971.  
**Hartwig, Hellmut A.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1943.  
**Keller, Thomas**, Associate Professor, Ph.D., University of Colorado, 1975.  
**Kilker, James**, Professor, Ph.D., University of Missouri at Columbia, 1961.  
**Kupcek, Joseph**, Professor, *Emeritus*, Ph.D., Comenius University, Bratislava, Czechoslovakia, 1943.  
**Liedloff, Helmut**, Professor and *Chairperson*, Ph.D., Phillips University, Germany, 1956.  
**McBride, Charles**, Associate Professor, Ph.D., University of Texas, 1968.  
**Meinhardt, Warren**, Associate Professor, Ph.D., University of California at Berkeley, 1965.  
**Neufeld, Anna K.**, Assistant Professor, *Emerita*, M.A., University of Kansas, 1937.  
**O'Brien, Joan**, Professor, Ph.D., Fordham University, 1961.  
**Orechwa, Olga**, Associate Professor, Ph.D., Ukrainian Free University, Germany, 1970.  
**Speck, Charles**, Assistant Professor, Laurea in Diritto Canonico, Pontifical Lateran University, Italy, 1963.  
**Tai, James**, Associate Professor, Ph.D., Indiana University, 1970.  
**Timpe, Eugene F.**, Professor, Ph.D., University of Southern California, 1960.  
**Ulner, Arnold**, Assistant Professor, Ph.D., University of Missouri at Columbia, 1972.  
**Vogely, Maxine**, Assistant Professor, *Emerita*, Ph.D., University of Illinois, 1969.  
**Wilkinson, Mildred**, Assistant Professor, M.A., Southern Illinois University, 1965.  
**Williams, Fredrick**, Associate Professor, Ph.D., Cornell University, 1976.  
**Winters, Margaret E.**, Associate Professor, Ph.D., University of Pennsylvania, 1975.  
**Woodbridge, Hensley**, Professor, Ph.D., University of Illinois, 1950.

## Forestry (School of Agriculture)

**Aubertin, Gerald M.**, Associate Professor, Ph.D., Pennsylvania State University, 1964.  
**Budelsky, Carl A.**, Assistant Professor, Ph.D., University of Arizona, 1969.

**Burde, John H., III**, Associate Professor, Ph.D., University of Arizona, 1975.  
**Cecich, Robert A.**, Adjunct Assistant Professor, Ph.D., Iowa State University, 1974.  
**Chen, Peter Y.S.**, Adjunct Assistant Professor, Ph.D., University of Minnesota, 1968.  
**Chilman, Kenneth C.**, Associate Professor, Ph.D., University of Michigan, 1972.  
**Clausen, Knud E.**, Adjunct Assistant Professor, Ph.D., University of Minnesota, 1961.  
**Fralish, James S.**, Associate Professor, Ph.D., University of Wisconsin, 1970.  
**Gaffney, Gerald R.**, Assistant Professor, Ph.D., Southern Illinois University, 1970.  
**Kessler, Kenneth J.**, Adjunct Assistant Professor, Ph.D., West Virginia University, 1959.  
**Kung, Fan H.**, Professor, Ph.D., Michigan State University, 1968.  
**McCurdy, Dwight R.**, Professor, Ph.D., Ohio State University, 1964.  
**Myers, Charles C.**, Associate Professor, Ph.D., Purdue University, 1966.  
**Phelps, John**, Adjunct Assistant Professor, Ph.D., University of Missouri, 1980.  
**Ponder, Felix, Jr.**, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1978.  
**Rink, George**, Adjunct Assistant Professor, Ph.D., University of Tennessee, 1974.  
**Schlesinger, Richard C.**, Adjunct Assistant Professor, Ph.D., State University of New York, 1970.  
**Steward, Harold A.**, Adjunct Assistant Professor, M.W.T., University of Michigan, 1967.  
**Roth, Paul L.**, Professor, Ph.D., Kansas State University, 1968.  
**Van Sambeek, Jerome W.**, Adjunct Assistant Professor, Ph.D., Washington University, 1975.  
**Weaver, George T.**, Professor and *Chairperson*, Ph.D., University of Tennessee, 1972.  
**Weber, Barbara C.**, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1982.  
**Yambert, Paul A.**, Professor, Ph.D., University of Michigan, 1961.

## Geography (College of Liberal Arts)

**Arey, David G.**, Associate Professor and *Chairperson*, Ph.D., Clark University, 1969.  
**Baumann, Duane D.**, Professor, Ph.D., Clark University, 1968.  
**Beazley, Ronald I.**, Professor, *Emeritus*, Ph.D., Purdue University, 1954.  
**Christensen, David E.**, Professor, *Emeritus*, Ph.D., University of Chicago, 1956.  
**Dziegielewski, Benedykt**, Assistant Professor, Ph.D., Southern Illinois University, 1983.  
**Horsley, A. Doayne**, Assistant Professor, Ph.D., Southern Illinois University, 1974.  
**Irwin, Daniel R.**, Associate Professor, Ph.D., Syracuse University, 1972.  
**Jones, David L.**, Professor, Ph.D., Pennsylvania State University, 1960.  
**Krause, Annemarie**, Associate Professor, *Emerita*, Ph.D., University of Chicago, 1952.  
**Lieber, Stanley R.**, Professor, Ph.D., University of Iowa, 1974.  
**Sharpe, David M.**, Professor, Ph.D., Southern Illinois University, 1968.

## Geology (College of Science)

**Bell, Frank James**, Assistant Professor, *Emeritus*, M.S., University of Nebraska, 1941.  
**Crelling, John C.**, Associate Professor, Ph.D., The Pennsylvania State University, 1973.  
**Dutcher, Russell R.**, Professor, Ph.D., The Pennsylvania State University, 1960.  
**Esling, Steven Paul**, Assistant Professor, Ph.D., University of Iowa, 1982.  
**Fifarek, Richard H.**, Assistant Professor, Ph.D., Oregon State University, 1985.  
**Frank, Charles O.**, Assistant Professor, Ph.D., Syracuse University, 1973.  
**Fraunfelter, George H.**, Professor, Ph.D., University of Missouri, Columbia, 1964.  
**Guillemette, Renald N.**, Assistant Professor, Ph.D., Stanford University, 1973.  
**Harris, Stanley E. Jr.**, Professor, *Emeritus*, Ph.D., University of Iowa, 1947.  
**Jobling, John L.**, Associate Professor, Ph.D., The Pennsylvania State University, 1974.  
**Kochel, R. Craig**, Assistant Professor, Ph.D., University of Texas at Austin, 1980.  
**Malinconico, Lawrence L.**, Assistant Professor, Ph.D., Dartmouth College, 1982.  
**Marzolf, John E.**, Associate Professor, Ph.D., University of California at Los Angeles, 1970.  
**Ritter, Dale F.**, Professor, Ph.D., Princeton University, 1964.  
**Sexton, John L.**, Associate Professor, Ph.D., Indiana University, 1974.  
**Utgaard, John E.**, Professor and *Chairperson*, Ph.D., Indiana University, 1963.  
**Zimmerman, Jay, Jr.**, Professor, Ph.D., Princeton University, 1968.

## Graphic Communications (School of Technical Careers)

**Ashworth, Edwin Robert**, Assistant Professor, *Emeritus*, Computer Information Processing, Ph.D., Southern Illinois University, 1972.



- Boza, Gertrude**, Instructor, *Emerita*, Graphic Design, Fine Arts Degree, Syracuse University, 1932.
- Bramlet, James E.**, Assistant Professor, Commercial Graphics-Design, M.A., Western Illinois University, 1970.
- Caldwell, Paul N.**, Associate Professor, *Emeritus*, Electronics Technology, M.S.Ed., Southern Illinois University, 1965.
- Clarke, David D.**, Professor, M.A., Catholic University, 1981.
- Cook, F. Roger**, Instructor, Computer Information Processing, B.S., Southern Illinois University, 1974.
- Davey, Jon**, Visiting Lecturer, Architectural Technology, B.S., Southern Illinois University, 1979.
- Davis, Diane**, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1979.
- Davis, L. Noel**, Assistant Professor, Architectural Technology, B.S., University of Illinois, 1948.
- Delmastro, Edwin V.**, Instructor, Photographic Production Technology.
- Devenport, William R.**, Lecturer, Electronics Technology, B.S., Illinois State University, 1975.
- Einig, Raymond G., Jr.**, Assistant Professor, Computer Information Processing, M.S., St. Louis University, 1962.
- Ellner, Jack R.**, Professor, Ph.D., New York University, 1969.
- Evans, Candy Duncan**, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1973.
- Fisher, Valerie**, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1975.
- Ford, George**, Lecturer, Electronics Technology, B.S., University of Toledo, 1965.
- Gimenez, Atilio M.**, Assistant Professor, Architectural Technology, M.Arch., University of Buenos Aires, 1964.
- Greathouse, Deborah J.**, Lecturer, Electronics Technology, B.S., Southern Illinois University, 1983.
- Hampton, Robbye Joanna**, Assistant Professor, Mathematics, M.S., Southern Illinois University, 1965.
- Harre, Paul A.**, Associate Professor and *Director*, Graphic Communications, M.S., Southern Illinois University, 1974.
- Haun, Melvin L., Sr.**, Lecturer, Electronics Technology, M.S., Southern Illinois University, 1982.
- Hays, Denny M.**, Associate Professor, A.I.A., Registered Architect, M. of Arch., University of Utah, Salt Lake City, 1971.
- Hill, Marvin P.**, Professor, *Emeritus*, M.S., University of Colorado, 1939.
- Humphries, James T.**, Associate Professor, Electronics Technology, M.S., Southern Illinois University, 1979.
- Jeralds, Lawrence E.**, Assistant Professor, Computer Information Processing, B.S., Southern Illinois University, 1972.
- Johnson, Byron V.**, Assistant Professor and *Coordinator*, Computer Information Processing, Ph.D., Southern Illinois University, 1982.
- Lach, Norman**, Assistant Professor, Architectural Technology, M.Arch., University of Illinois, 1974.
- Ladner, Joel Brooks**, Associate Professor, Architectural Technology, M.Arch., University of Houston, 1984.
- Little, Harold E.**, Associate Professor, *Emeritus*, Architectural Technology, B.S., Pennsylvania State University, 1951.
- Mailloux, Lawrence**, Assistant Professor, Commercial Graphics-Design, B.F.A., Rhode Island School of Design, 1947.
- Morgan, Barbara**, Assistant Professor and *Coordinator*, Secretarial and Office Specialties, M.S., Southern Illinois University, 1972.
- Morse, H. Pauletta**, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1979.
- Novak, Mary Ann**, Assistant Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1979.
- Nuetzel, Carolyn**, Assistant Professor, M.Arch., Washington University, 1976.
- Owens, Terry A.**, Visiting Lecturer, Architectural Technology, B.S., Southern Illinois University, 1981.
- Payne, Michael A.**, Associate Professor, Computer Information Processing, M.S., Southern Illinois University, 1974.
- Ramsey, William**, Lecturer, Physics, M.S., Southern Illinois University.
- Richey, Helen E.**, Assistant Professor, *Emerita*, Graphic Communication, M.S., Southern Illinois University, 1953.
- Rutledge, Clifton D.**, Associate Professor, Architectural Technology, M.Arch., Kansas State University, 1968.

- Schoen, Janice S.**, Assistant Professor, Secretarial and Office Specialties, M.S., University of Illinois, 1970.
- Sheets, Leslie P.**, Associate Professor, Electronics Technology, M.S., Southern Illinois University, 1976.
- Sheridan, Robert O.**, Assistant Professor, Commercial Graphics-Design, B.S., Southern Illinois University, 1979.
- Shin, Wangshik**, Associate Professor, Secretarial and Office Specialties, M.S., Southern Illinois University, 1963.
- Shupe, William G.**, Associate Professor and *Coordinator*, Electronics Technology, M.S., Southern Illinois University, 1977.
- Swope, Larry E.**, Visiting Instructor, Interior Design, M.S., Southern Illinois University, 1970.
- Timm, Judee A.**, Assistant Professor, Secretarial and Office Specialties, Ph.D., Southern Illinois University, 1983.
- Tinckham, Ronald D.**, Lecturer, Electronics Technology, B.S., Southern Illinois University, 1981.
- Trotter, Gene E.**, Associate Professor, *Emeritus*, Architectural Technology, B.S., North Dakota State University, 1939.
- Vaughn, F. Eugene**, Associate Professor, *Emeritus*, Secretarial and Office Specialties, M.S.Ed., Southern Illinois University, 1961.
- Walchli, Edward J.**, Associate Professor and *Coordinator*, Architectural Technology, B.Arch., Yale University, 1949.
- White, Robert**, Assistant Professor and *Coordinator*, Photographic Production Technology, M.S., Southern Illinois University, 1962.
- Yack, John L.**, Associate Professor and *Coordinator*, Commercial Graphics-Design, M.F.A., University of Oklahoma, 1959.

## Health Education (College of Education)

- Aaron, James E.**, Professor, Ed.D., New York University, 1960.
- Boydston, Donald N.**, Professor and *Chairperson*, Ed.D., Columbia University, 1949.
- Bridges, A. Frank.**, Professor, *Emeritus*, D.H.S., Indiana University, 1952.
- Casey, Ralph**, Associate Professor, *Emeritus*, Ed.D., Columbia University, 1956.
- Denny, Florence E.**, Associate Professor, *Emerita*, M.A., Columbia University, 1935.
- Drolet, Judy C.**, Assistant Professor, Ph.D., University of Oregon, 1982.
- Duncan, David F.**, Professor, D.P.H., University of Texas at Houston, 1976.
- Grissom, Deward K.**, Professor *Emeritus*, Ed.D., Columbia University, 1952.
- Hailey, Robert**, Instructor, M.Ed., University of Missouri, Columbia, 1959.
- Iubelt, George**, Instructor, M.S., Indiana University, 1954.
- Jones, Richard**, Instructor, M.S.Ed., Southern Illinois University, 1966.
- Lacey, Ella P.**, Assistant Professor, Ph.D., Southern Illinois University, 1979.
- LeFevre, John R.**, Professor, Ed.D., Teachers College, Columbia University, 1950.
- McDermott, Robert J.**, Associate Professor, Ph.D., University of Wisconsin, 1981.
- Phillips, Frances K.**, Associate Professor *Emerita*, M.A., Columbia University, 1940.
- Richardson, Charles E.**, Professor, Ed.D., University of California, Los Angeles, 1959.
- Ritzel, Dale**, Professor, Ph.D., Southern Illinois University, 1970.
- Russell, Robert D.**, Professor, Ed.D., Stanford University, 1954.
- Sliepcovich, Elena M.**, Professor, D.P.E., Springfield College, 1955.
- Vaughn, Andrew T.**, Professor, *Emeritus*, D.Ed., Columbia University, 1958.
- Vitello, Elaine**, Associate Professor, Ph.D., Southern Illinois University, 1977.
- Vogel, Herbert**, Instructor, M.S., Indiana University, 1954.
- Zunich, Eileen M.**, Assistant Professor, Ph.D., Southern Illinois University, 1970.

## History (College of Liberal Arts)

- Allen, Howard W.**, Professor and *Chairperson*, Ph.D., University of Washington, 1959.
- Ammon, Harry**, Professor, *Emeritus*, Ph.D., University of Virginia, 1948.
- Barton, H. Arnold**, Professor, Ph.D., Princeton University, 1962.
- Batinski, Michael C.**, Assistant Professor, Ph.D., Northwestern University, 1969.
- Brehm, Donald L.**, Assistant Professor, Ph.D., St. Louis University, 1968.
- Carrott, M. Browning**, Associate Professor, Ph.D., Northwestern University, 1966.
- Cashin, Joan E.**, Assistant Professor, Ph.D., Harvard University, 1985.
- Conrad, David E.**, Professor, Ph.D., University of Oklahoma, 1962.
- Detwiler, Donald S.**, Professor, Dr.Phil., Göttingen University, Germany, 1961.



**Dotson, John E.**, Assistant Professor, Ph.D., Johns Hopkins University, 1969.  
**Fladeland, Betty L.**, Distinguished Professor, *Emerita*, Ph.D., University of Michigan, 1952.  
**Gardiner, C. Harvey**, Professor, *Emeritus*, Ph.D., University of Michigan, 1945.  
**Gold, Robert L.**, Professor, Ph.D., University of Iowa, 1964.  
**Kuo, Ping-Chia**, Professor, *Emeritus*, Ph.D., Harvard University, 1933.  
**Murphy, James B.**, Associate Professor, Ph.D., Louisiana State University, 1968.  
**O'Day, Edward J.**, Assistant Professor, A.M., Indiana University, 1956.  
**Shelby, Lon R.**, Professor, Ph.D., University of North Carolina, 1962.  
**Simon, John Y.**, Professor, Ph.D., Harvard University, 1961.  
**Vyverberg, Henry S.**, Professor, Ph.D., Harvard University, 1950.  
**Werlich, David P.**, Professor, Ph.D., University of Minnesota, 1968.  
**Wright, John I.**, Associate Professor, *Emeritus*, A.M., University of Chicago, 1933.  
**Wu, Tien-Wei**, Professor, Ph.D., University of Maryland, 1965.  
**Zucker, Stanley**, Professor, Ph.D., University of Wisconsin, 1968.

## Journalism (College of Communications and Fine Arts)

**Atwood, L. Erwin**, Professor, Ph.D., University of Iowa, 1965.  
**Brown, George C.**, Professor, Ph.D., Southern Illinois University, 1963.  
**Clayton, Charles C.**, Professor, *Emeritus*, B.J., University of Missouri, 1925.  
**Ford, James L. C.**, Professor, *Emeritus*, Ph.D., University of Minnesota, 1948.  
**Gruny, C. Richard**, Assistant Professor, J.D., University of Illinois, 1959.  
**Harmon, William M.**, Adjunct Instructor, M.S., Oklahoma State University, 1965.  
**Hart, Jim Allee**, Professor, *Emeritus*, Ph.D., University of Missouri, 1959.  
**Long, Howard R.**, Professor, *Emeritus*, Ph.D., University of Missouri, 1948.  
**McCoy, Ralph E.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1956.  
**McKerns, Joseph**, Associate Professor, Ph.D., University of Minnesota, 1979.  
**Nevious, William**, Instructor, M.S., Southern Illinois University, 1979.  
**Rice, W. Manion**, Associate Professor and *Acting Director*, Ph.D., Southern Illinois University, 1967.  
**Spellman, Robert L., Jr.**, Assistant Professor, J.D., Cleveland State University, 1977.  
**Stone, Vernon A.**, Professor, Ph.D., University of Wisconsin, 1966.  
**Stonecipher, Harry W.**, Professor, *Emeritus*, Ph.D., Southern Illinois University, 1971.  
**Taylor, John C.**, Lecturer, M.A., University of Alabama, 1960.  
**Whitby, Gary**, Assistant Professor, Ph.D., University of Iowa, 1984.

## Library

**Bauner, Ruth E.**, Associate Professor, Ph.D., Southern Illinois University, 1978.  
**Bedient, Douglas**, Associate Professor, Ph.D., Southern Illinois University, 1971.  
**Black, George W., Jr.**, Professor, M.S.L.S., Columbia University, 1966.  
**Boydston, Jo Ann**, Distinguished Professor, Ph.D., Columbia University, 1950.  
**Brown, F. Dale**, Associate Professor, Ph.D., Southern Illinois University, 1978.  
**Chervinko, James S.**, Assistant Professor, M.S.L.S., University of Illinois, 1973.  
**Clark, Charlotte R.**, Assistant Professor, A.B.L.S., University of Michigan, 1940.  
**Cohn, Alan M.**, Professor, M.S., University of Illinois, 1955.  
**Cook, Margaret K.**, Assistant Professor, Ph.D., Southern Illinois University, 1977.  
**Coscarelli, William C.**, Associate Professor, Ph.D., Indiana University, 1977.  
**Cox, Shelley M.**, Assistant Professor, M.A.L.S., University of Chicago, 1973.  
**Crane, Lilly E.**, Assistant Professor, M.A.L.S., University of Michigan, 1967.  
**Fahay, Kathleen G.**, Assistant Professor, M.L.S., University of Minnesota, 1968.  
**Finkelman, Michael C.**, Assistant Professor, M.L.S., University of New York, 1985.  
**Fox, James W.**, Assistant Professor, M.A., University of North Carolina, 1974.  
**Fox, Mary Anne**, Assistant Professor, M.S.L.S., University of North Carolina, 1975.  
**Glass, Betty J.**, Assistant Professor, M.S.L.S., University of Tennessee, 1983.  
**Harwood, Judith Ann**, Assistant Professor, Ph.D., Southern Illinois University, 1981.  
**Hildreth, Margaret H.**, Assistant Professor, M.L.S., State University of New York at Geneseo, 1970.  
**Holliday, Charles L.**, Assistant Professor, M.S., University of Illinois, 1964.  
**Hostetler, Jerry**, Assistant Professor, Ph.D., Southern Illinois University, 1977.  
**Hutton, Betty Jean**, Assistant Professor, M.S. Ed., Southern Illinois University, 1968.  
**Isbell, Mary K.**, Assistant Professor, M.S., Southern Illinois University, 1971.  
**Jenkins, Darrell L.**, Associate Professor, M.A., New Mexico State University, 1976.  
**Keel, Robert L.**, Assistant Professor, M.A.L.S., George Peabody College for Teachers, 1961.

Kilpatrick, Thomas L., Associate Professor, Ph.D., George Peabody College, 1982.  
 Koch, David V., Associate Professor, M.A., Southern Illinois University, 1963.  
 Lampman, Wilma L., Assistant Professor, M.S., Southern Illinois University, 1978.  
 Landor, Blake, Lecturer, Ph.D., University of Toronto, 1980.  
 Levine, Barbara, Researcher, M.A., Northwestern University, 1960.  
 Marquez-Sterling, Carlos, Assistant Professor, D.L., Havana University, 1952.  
 Marrero, Carlos E., Instructor, M.A., University of Denver, 1961.  
 Martinsek, Catherine W., Researcher, M.A., University of California at Los Angeles, 1950.  
 Matson, Susan A., Assistant Professor, Ph.D., University of Wisconsin, 1972.  
 Matthews, Elizabeth W., Professor, Ph.D., Southern Illinois University, 1972.  
 Person, Roland C., Associate Professor, Ph.D., Southern Illinois University, 1982.  
 Peterson, Kenneth G., Professor, Ph.D., University of California at Berkeley, 1968.  
 Pixley, Lorene, Assistant Professor, M.S., University of Illinois, 1960.  
 Poteet, Susan S., Assistant Professor, M.L.S., George Peabody College, 1970.  
 Poulos, Kathleen E., Researcher, M.S. Ed., Southern Illinois University, 1969.  
 Preece, Barbara G., Lecturer, M.A.L.S., University of Minnesota, 1979.  
 Rubin, Angela, Assistant Professor, M.S., University of Illinois, 1956.  
 Russell, Thyra K., Assistant Professor, M.A., Northern Illinois University, 1972.  
 Ryan, Sheila, Assistant Professor, M.A.L.S., University of Wisconsin, 1983.  
 Scott, W. Wiley, Assistant Professor, M.M., Southern Illinois University, 1981.  
 Sharpe, Anne S., Researcher, B.F.A., Syracuse University, 1960.  
 Simon, Harriet F., Researcher, Ed.M., Harvard Graduate School of Education, 1956.  
 Simon, John Y., Professor, Ph.D., Harvard University, 1961.  
 Starns, Matilda T., Assistant Professor, M.S., University of Illinois, 1963.  
 Stubbs, Walter R., Assistant Professor, Ph.D., Southern Illinois University, 1983.  
 Tax, Andrew T., Assistant Professor, M.L.S., Charles University, Prague, 1962.  
 Wilson, Betty Ruth, Assistant Professor, M.A., George Peabody College for Teachers, 1957.  
 Wilson, David L., Research Associate, Ph.D., University of Tennessee, 1974.  
 Withee, Jane S., Lecturer, M.S.L.S., University of Illinois, 1984.  
 Wood, Don E., Assistant Professor, M.S., University of Illinois, 1965.

## Linguistics (College of Liberal Arts)

Angelis, Paul J., Associate Professor and *Chairperson*, Ph.D., Georgetown University, 1968.  
 Carrell, Patricia L., Professor, Ph.D., University of Texas at Austin, 1966.  
 Gilbert, Glenn G., Professor, Ph.D., Harvard University, 1963.  
 Nathan, Geoffrey S., Assistant Professor, Ph.D., University of Hawaii, 1978.  
 Nguyen, Dinh-Hoa, Professor, Ph.D., New York University, 1956.  
 Parish, Charles, Professor, Ph.D., University of New Mexico, 1959.  
 Perkins, Allen Kyle, Professor, Ph.D., University of Michigan at Ann Arbor, 1976.  
 Redden, James E., Professor, Ph.D., Indiana University, 1965.  
 Winer, Lise S., Assistant Professor, Ph.D., University of the West Indies, 1982.

## Management (College of Business and Administration)

Andrew, Sarah, Lecturer, Ph.D., Southern Illinois University, 1980.  
 Bateman, David N., Professor, Ph.D., Southern Illinois University, 1970.  
 Bedwell, R. Ralph, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1969.  
 Fohr, John M., Professor, *Emeritus*, Michigan State University, 1959.  
 Gardner, William L., Assistant Professor, D.B.A., Florida State University, 1984.  
 Gutteridge, Thomas G., Professor and *Dean*, Ph.D., Purdue University, 1971.  
 Jauch, Lawrence R., Professor, Ph.D., University of Missouri at Columbia, 1973.  
 Kraft, Kenneth L., Assistant Professor, D.B.A., University of Maryland, 1982.  
 Larson, Lars L., Associate Professor, Ph.D., University of Illinois, 1971.  
 Martin, Thomas N., Jr., Associate Professor and *Chairperson*, Ph.D., University of Iowa, 1977.  
 Ramaprasad, Arkalqud, Associate Professor, Ph.D., University of Pittsburgh, 1980.  
 Rehn, Henry J., Professor, *Emeritus*, Ph.D., University of Chicago, 1930.  
 Schermerhorn, John R., Professor, Ph.D., Northwestern University, 1974.  
 Scott, John W., Professor, *Emeritus*, Ph.D., University of Chicago, 1930.  
 Sekaran, Uma, Professor, Ph.D., University of California at Los Angeles, 1977.  
 Snodgrass, Coral P., Assistant Professor, Ph.D., University of Pittsburgh, 1984.  
 Szewczak, Edward J., Assistant Professor, Ph.D., University of Pittsburgh, 1984.



**Troutt, Marvin**, Assistant Professor, Ph.D., University of Illinois at Chicago Circle, 1975.  
**Vicars, William M.**, Associate Professor, Ph.D., Southern Illinois University, 1969.  
**Westberg, William C.**, Professor, *Emeritus*, Ph.D., Pennsylvania State University, 1948.  
**White, Gregory P.**, Associate Professor, Ph.D., University of Cincinnati, 1976.  
**Wilson, Harold K.**, Associate Professor, D.B.A., University of Colorado, 1972.

## Marketing (College of Business and Administration)

**Adams, Kendall A.**, Professor, Ph.D., Michigan State University, 1962.  
**Andersen, R. Clifton**, Professor and *Chairperson*, D.B.A., Indiana University, 1960.  
**Anderson, Carol M.**, Associate Professor, Ph.D., Texas A & M University, 1981.  
**Bruner, Gordon C., II**, Assistant Professor, Ph.D., North Texas State University, 1983.  
**Domermuth, William P.**, Professor, Ph.D., Northwestern University, 1964.  
**Hensel, Paul J.**, Associate Professor, Ph.D., University of Houston, 1982.  
**Hindersman, Charles H.**, Professor, D.B.A., Indiana University, 1959.  
**Moore, James R.**, Assistant Professor, Ph.D., University of Illinois, 1972.  
**Parker, Thomas H.**, Instructor, M.B.A., Drake University, 1976.  
**Perry, Donald L.**, Associate Professor, Ph.D., University of Illinois, 1966.  
**Summey, John H.**, Associate Professor, D.B.A., Arizona State University, 1974.

## Mathematics (College of Science)

**Allison, Dean**, Assistant Professor, Ph.D., University of Missouri at Columbia, 1985.  
**Baartmans, Alphonse H.**, Professor, Ph.D., Michigan State University, 1967.  
**Beckemeyer, Imogene C.**, Assistant Professor, *Emerita*, M.A., Southern Illinois University, 1952.  
**Burton, Theodore A.**, Professor, Ph.D., Washington State University, 1964.  
**Carlson, Dean A.**, Assistant Professor, Ph.D., University of Delaware at Newark, 1983.  
**Crenshaw, James A.**, Associate Professor, Ph.D., University of Illinois, 1967.  
**Danhof, Kenneth**, Professor, Ph.D., Purdue University, 1969.  
**Dharmadhikari, Sudhakar**, Professor, Ph.D., University of California at Berkeley, 1962.  
**Earnest, Andrew**, Associate Professor, Ph.D., Ohio State University, 1975.  
**Elston, George**, Assistant Professor, M.S., University of Wisconsin, 1949.  
**Feinsilver, Philip**, Associate Professor, Ph.D., New York University, 1975.  
**Fitzgerald, Robert** Associate Professor, Ph.D., University of California at Los Angeles, 1980.  
**Foland, Neal E.**, Professor, Ph.D., University of Missouri, 1961.  
**Gates, Leslie D.**, Associate Professor, Ph.D., Iowa State University, 1952.  
**Greene, John**, Assistant Professor, Ph.D., University of Minnesota, 1984.  
**Gregory, John**, Professor, Ph.D., University of California at Los Angeles, 1969.  
**Grimmer, Ronald C.**, Professor, Ph.D., University of Iowa, 1967.  
**Hall, Dilla**, Associate Professor, *Emeritus*, Ph.D., St. Louis University, 1955.  
**Hooker, John W.**, Associate Professor, Ph.D., University of Oklahoma, 1967.  
**Hunsaker, Worthen N.**, Associate Professor, Ph.D., Washington State University, 1966.  
**Jeyaratnam, Sakthivel**, Associate Professor, Ph.D., Colorado State University, 1978.  
**Kammler, David**, Professor, Ph.D., University of Michigan, 1971.  
**Kirk, Ronald B.**, Professor and *Chairperson*, Ph.D., California Institute of Technology, 1968.  
**Koch, Charles**, Assistant Professor, Ph.D., University of Illinois, 1961.  
**Kuipers, Lauwerens**, Professor, *Emeritus*, Ph.D., Vrije Universiteit (Amsterdam), 1947.  
**Langenhop, Carl E.**, Professor, Ph.D., Iowa State University, 1948.  
**Mark, Abraham M.**, Professor, *Emeritus*, Ph.D., Cornell University, 1947.  
**Maxwell, Charles**, Professor, Ph.D., University of Illinois, 1955.  
**McDaniel, Wilbur C.**, Professor, *Emeritus*, Ph.D., University of Wisconsin, 1939.  
**Milman, Mario**, Associate Professor, Ph.D., Australian National University, 1978.  
**Mohammed, Salah**, Associate Professor, Ph.D., University of Warwick, 1976.  
**Moore, Robert A.**, Associate Professor, Ph.D., Indiana University, 1962.  
**Mulrow, Edward J.**, Assistant Professor, Ph.D., Colorado State University, 1986.  
**Neuman, Edward G.**, Associate Professor, Ph.D., University of Wroclaw (Poland), 1972.  
**Olmsted, John M. H.**, Professor, *Emeritus*, Ph.D., Princeton University, 1940.  
**Paine, Thomas B.**, Assistant Professor, Ph.D., University of Oregon, 1966.  
**Panchapakesan, S.**, Professor, Ph.D., Purdue University, 1969.  
**Parker, George D.**, Associate Professor, Ph.D., University of California at San Diego, 1971.  
**Patula, William T.**, Associate Professor, Ph.D., Carnegie-Mellon University, 1972.  
**Pedersen, Franklin D.**, Associate Professor, Ph.D., Tulane University, 1967.

**Pedersen, Katherine**, Associate Professor, Ph.D., Tulane University, 1969.  
**Pericak-Spector, Kathleen**, Assistant Professor, Ph.D., Carnegie-Mellon University, 1980.  
**Redmond, Donald**, Associate Professor, Ph.D., University of Illinois, 1976.  
**Simion, Rodica**, Assistant Professor, Ph.D., University of Pennsylvania, 1981.  
**Skalsky, Michael**, Professor, *Emeritus*, D.Nat.Sc., University of Göttingen, 1949.  
**Slechticky, James L.**, Instructor, *Emeritus*, M.S. Washington University, 1940.  
**Snyder, Herbert H.**, Professor, Ph.D., Lehigh University, 1965, Ph.D., University of South Africa, 1972.  
**Spector, Scott J.**, Associate Professor, Ph.D., Carnegie-Mellon University, 1978.  
**Upham, Mary**, Assistant Professor, Ph.D., McGill University, 1977.  
**Wallis, Walter**, Professor, Ph.D., University of Sydney, 1967.  
**Willis, Daniel G.**, Assistant Professor, Ph.D., University of Iowa, 1986.  
**Wilson, Joseph C.**, Professor, *Emeritus*, Ph.D., Louisiana State University, 1954.  
**Wimp, Larry L.**, Assistant Professor, *Emeritus*, M.A., University of Missouri, 1940, M.S., Southern Illinois University, 1959.  
**Yucas, Joseph**, Associate Professor, Ph.D., Pennsylvania State University, 1978.  
**Zeman, Marvin**, Associate Professor, Ph.D., New York University (Courant Institute), 1974.

## Mechanical Engineering and Energy Processes

(College of Engineering and Technology)

**Agrawal, Om**, Assistant Professor, Ph.D., University of Illinois at Chicago, 1984.  
**Brower, William E., Jr.**, Professor, Ph.D., Massachusetts Institute of Technology, 1969.  
**Chen, Juh W.**, Professor, Ph.D., University of Illinois, 1959.  
**Don, Jarlen**, Assistant Professor, Ph.D., Ohio State University, 1982.  
**Helmer, Wayne Allen**, Associate Professor, Ph.D., Purdue University, 1974.  
**Hesketh, Howard B.**, Professor, Ph.D., Pennsylvania State University, 1968.  
**Hippo, Edwin J.**, Associate Professor, Ph.D., Pennsylvania State University, 1977.  
**Jefferson, Thomas B.**, Professor, Ph.D., Purdue University, 1955.  
**Kent, Albert C.**, Professor and *Chairperson*, Ph.D., Kansas State University, 1968.  
**Lalvani, S.B.**, Assistant Professor, University of Connecticut, 1982.  
**Lue, Wei-Rong**, Assistant Professor, Ph.D., University of Illinois at Urbana, 1985.  
**Muchmore, Charles B.**, Professor, Ph.D., Southern Illinois University, 1970.  
**O'Brien, William S.**, Assistant Professor, Ph.D., West Virginia University, 1972.  
**Orthwein, William**, Professor, Ph.D., University of Michigan, 1959.  
**Rajan, S.**, Associate Professor, Ph.D., University of Illinois, 1970.  
**Swisher, James H.**, Professor, Ph.D., Carnegie-Mellon University, 1963.  
**Tempelmeyer, Kenneth E.**, Professor, Ph.D., University of Tennessee, 1969.  
**Wapner, Philip G.**, Associate Professor, Ph.D., University of Pennsylvania, 1970.  
**Wittmer, Dale**, Associate Professor, Ph.D., University of Illinois, 1980.

## Microbiology (College of Science)

**Borgia, Peter**, Associate Professor, Ph.D., University of Illinois, 1973.  
**Brewer, Gregory**, Associate Professor, Ph.D., University of California, 1972.  
**Caster, John**, Assistant Professor, Ph.D., St. Louis University, 1968.  
**Clark, David**, Assistant Professor, Ph.D., University of Bristol (England), 1976.  
**Cooper, Morris D.**, Associate Professor, Ph.D., University of Georgia at Athens, 1971.  
**Jackson, Robert**, Professor, Ph.D., Purdue University, 1963.  
**Lev, Meir**, Professor, University of Reading (England), 1957.  
**Madigan, Michael T.**, Associate Professor, Ph.D., University of Wisconsin, 1976.  
**Martinko, John M.**, Assistant Professor, Ph.D., State University of New York at Buffalo, 1978.  
**McConnachie, Peter**, Associate Professor, Ph.D., University of Alberta, Canada, 1970.  
**McIntyre, John A.**, Associate Professor, Ph.D., Wake Forest University, 1971.  
**Moticka, Edward A.**, Associate Professor, Ph.D., University of Illinois at the Medical Center, 1970.  
**Myers, Walter L.**, Professor, D.V.M., Ph.D., University of Wisconsin, 1961.  
**Parker, Jack M.**, Associate Professor and *Acting Chairperson*, Ph.D., Purdue University, 1973.  
**Rouhandeh, Hassan**, Professor, Ph.D., Kansas State University, 1959.  
**Rowan, Dighton F.**, Professor, *Emeritus*, Ph.D., Stanford University, 1954.



- Shechmeister, Isaac L.**, Professor, *Emeritus*, Ph.D., University of California at Berkeley, 1949.  
**Tewari, Ram**, Professor, D.V.M., Agra University, India, 1960; Ph.D., Ohio State University, 1966.  
**Watabe, Kounosuki**, Assistant Professor, Ph.D., Kyoto University, Japan, 1981.

## Mining Engineering (College of Engineering and Technology)

- Caudle, Rodney D.**, Associate Professor, M.S., University of Illinois, 1952.  
**Chugh, Yoginder P.**, Professor and *Chairperson*, Ph.D., Pennsylvania State University, 1971.  
**Sevin, Hasan**, Assistant Professor, Ph.D., Columbia University, 1984.  
**Sinha, Atmesh K.**, Associate Professor, Ph.D., University of Sheffield, 1963.  
**Sweigard, Richard J.**, Assistant Professor, Ph.D., Pennsylvania State University, 1985.

## Music (College of Communications and Fine Arts)

- Allison, Robert**, Instructor, M.M., University of Illinois, 1979.  
**Barta, Michael**, Associate Professor, M.M., Franz Liszt Academy of Music (Hungary), 1977.  
**Barwick, Steven**, Professor, Ph.D., Harvard University, 1949.  
**Bateman, Marianne Webb**, Professor, M.Mus., University of Michigan, 1959.  
**Beattie, Donald**, Assistant Professor, M.Mus., University of Colorado, 1977.  
**Best, Richard**, Professor, Northwestern University.  
**Bottje, Will Gay**, Professor, *Emeritus*, A.Mus.D., Eastman School of Music, 1955.  
**Breznikar, Joseph**, Associate Professor, M.Mus., University of Akron, 1977.  
**Fligel, Charles**, Associate Professor, M.M., University of Kentucky, 1966.  
**Grizzell, Mary Jane**, Assistant Professor, *Emerita*, M.Mus., Eastman School of Music, 1943.  
**Hammond, William**, Associate Professor, Ed.D., Boston University, 1976.  
**Hanes, Michael**, Associate Professor, M.M.E., Southern Illinois University, 1965.  
**Hartline, Elisabeth**, Assistant Professor, *Emerita*, M.Mus. Northwestern University, 1936.  
**House, Mary Elaine Wallace**, Professor, *Emerita*, M.Mus., University of Illinois, 1954.  
**Hunt, C. B., Jr.**, Professor, *Emeritus*, Ph.D., University of California, Los Angeles, 1949.  
**Hussey, George**, Professor, M.A.Ed., Washington University, 1963.  
**Kingsbury, Robert**, Associate Professor, *Emeritus*, M.Mus., Northwestern University, 1952.  
**LeGault, Maurice**, Associate Professor, Ph.D., University of Minnesota, 1969.  
**Mandat, Eric**, Assistant Professor, M.M., Yale University, 1981.  
**McHugh, Catherine**, Professor, *Emerita*, Ed.D., Columbia University, 1959.  
**Mellado, Daniel**, Associate Professor, Ph.D., Michigan State University, 1979.  
**Mochnick, John**, Associate Professor, D.M.A., University of Cincinnati, 1978.  
**Mueller, Robert**, Professor, Ph.D., Indiana University, 1954.  
**Olsson, Phillip**, Professor, *Emeritus*, M.Mus., Chicago Conservatory, 1949.  
**Poulos, Helen**, Associate Professor, D.M., Indiana University, 1971.  
**Resnick, Robert**, Professor, *Emeritus*, M.Mus., Wichita State University, 1949.  
**Romersa, Henry**, Visiting Associate Professor, M.M.Ed., Oberlin College, 1955.  
**Roubos, Robert**, Professor and *Director*, D.M.A. University of Michigan, 1966.  
**Simmons, Margaret**, Associate Professor, M.M., University of Illinois, 1976.  
**Stemper, Frank**, Assistant Professor, Ph.D., University of California, 1981.  
**Taylor, Charles**, Associate Professor, *Emeritus*, Ed.D., Columbia University, 1950.  
**Tomasz, Melanie**, Assistant Professor, M.M., Northwestern University, 1973.  
**Underwood, Jervis**, Professor, Ph.D., North Texas State University, 1970.  
**Wagner, Jeanine**, Instructor, M.M., Southern Illinois University, 1981.  
**Weiss, Robert**, Associate Professor, Ph.D., Southern Illinois University, 1984.  
**Werner, Kent**, Associate Professor, Ph.D., University of Iowa, 1966.  
**Wharton, John**, Associate Professor, *Emeritus*, M.Mus., American Conservatory, 1940.

## Office of Teacher Education (College of Education)

- Abernathy, William R.**, Academic Adviser, M.S., Southern Illinois University, 1963.  
**Buser, Margaret**, *Assistant Coordinator*, Professional Education Experiences, M.S.Ed., Indiana University, 1966.  
**Cherry Aveniel A.**, Academic Adviser, M.S. Ed., Southern Illinois University, 1962.

- Giles, M. Frances**, *Coordinator*, Teacher Education Services, M.A., Southern Illinois University, 1969.
- Jenkins, Jeannette**, Academic Adviser, M.Ed., Pennsylvania State University, 1948.
- Keenan, Dorothy**, Academic Adviser, Ed.D., University of Illinois, 1962.
- Merchant, Jane**, Academic Adviser, B.A., Southern Illinois University, 1968.
- Moore, Eryn E.**, Assistant Professor, Ph.D., Southern Illinois University, 1976.
- Mueller, Ruth M.**, Academic Adviser, B.S., Milwaukee State Teachers College, 1944.
- Norris, William R.**, *Coordinator*, Professional Education Experiences, Ed.D., Indiana University, 1974.
- Roy, Thomas Michael**, *Director*, Computer Assisted Instruction Research Laboratory, Ph.D., Southern Illinois University, 1980.
- Turner, Doris Sewell**, Lecturer, *Emerita*, M.S. Ed., Southern Illinois University, 1949.
- Yates, Loyd V.**, *Director*, Teaching Skills Laboratory, Ph.D., Southern Illinois University, 1981.

## Paralegal Studies for Legal Assistants

- Dibble, Elizabeth**, Lecturer, J.D., Southern Illinois University, 1983.
- Franklin, Matthew**, Lecturer, J.D., Southern Illinois University, 1979.
- Hughes, Kenneth**, Lecturer, J.D., Southern Illinois University, 1982.
- Lacey, Pamela**, Lecturer, J.D., Southern Illinois University, 1982.

## Philosophy (College of Liberal Arts)

- Alexander Thomas**, Assistant Professor, Ph.D., Emory University, 1984.
- Clarke, David S., Jr.**, Professor, Ph.D., Emory University, 1964.
- Diefenbeck, James A.**, Professor, *Emeritus*, Ph.D., Harvard University, 1950.
- Eames, Elizabeth R.**, Professor and *Chairperson*, Ph.D., Bryn Mawr College, 1951.
- Eames, S. Morris**, Professor, *Emeritus*, Ph.D., University of Chicago, 1958.
- Gatens-Robinson, E.**, Assistant Professor, Ph.D., Southern Illinois University, 1984.
- Gillan, Garth J.**, Associate Professor, Ph.D., Duquesne University, 1966.
- Hahn, Lewis E.**, Professor, *Emeritus*, and Editor of *Library of Living Philosophers*, Ph.D., University of California, 1939.
- Hahn, Robert A.**, Assistant Professor, Ph.D., Yale University, 1976.
- Howie, John**, Associate Professor, Ph.D., Boston University, 1965.
- Johnson, Mark**, Associate Professor, Ph.D., University of Chicago, 1977.
- Kelly, Matthew J.**, Associate Professor, Ph.D., University of Notre Dame, 1963.
- King, Sallie Behn**, Assistant Professor, Temple University, 1981.
- McClure, George T.**, Professor, Ph.D., Ohio State University, 1958.
- Moore, Willis**, Professor, *Emeritus*, Ph.D., University of California, 1936.
- Plochmann, George Kimball**, Professor, *Emeritus*, Ph.D., University of Chicago, 1950.
- Schedler, George**, Professor, Ph.D., University of California at San Diego, 1973.
- Schilpp, Paul A.**, Professor, *Emeritus*, Ph.D., Stanford University, 1936.
- Tyman, Stephen**, Associate Professor, University of Toronto, 1980.

## Physical Education (College of Education)

- Ackerman, Kenneth**, Assistant Professor, M.A., Michigan State University, 1959.
- Baker, John A.W.**, Associate Professor, Ph.D., University of Iowa, 1980.
- Blackman, Claudia J.**, Instructor, M.S.Ed., Southern Illinois University, 1968.
- Brechtelsbauer, Kay M.**, Instructor, Ph.D., Southern Illinois University, 1980.
- Carroll, Peter**, Assistant Professor, Ph.D., Pennsylvania State University, 1970.
- Davies, Dorothy R.**, Professor, *Emerita*, Ed.D., University of Cincinnati, 1944.
- Dirks, W. Edward**, Instructor, M.S., Southern Illinois University, 1964; Certificate, Physical Therapy, Ohio State University, 1965.
- Fischman, Mark**, Assistant Professor, Ph.D., Pennsylvania State University, 1983.
- Franklin, C.C.**, Associate Professor, *Emeritus*, M.S.Ed., Indiana University, 1946.
- Franklin, Marcile**, Instructor, M.S.Ed., Indiana University, 1944.
- Furst, David**, Lecturer, Ph.D., Pennsylvania State University, 1981.
- Good, Larry**, Associate Professor, Ph.D., Temple University, 1968.
- Hamill, Joseph**, Assistant Professor, Ph.D., University of Oregon, 1981.
- Hartzog, Lewis**, Instructor, *Emeritus*, M.E., Colorado State University, 1954.



**Illner, Julee Ann**, Instructor, M.S.Ed., Southern Illinois University, 1968.  
**Knowlton, Ronald**, Professor, Ph.D., University of Illinois, 1961.  
**Kostalik, Linda**, Assistant Professor, M.F.A., University of California at Irvine, 1973.  
**Long, Linn**, Instructor, M.S., University of Colorado, 1967.  
**Martin, Janis**, Lecturer, Ed.D., University of Tennessee, 1982.  
**Meade, William**, Assistant Professor, M.A.Ed., University of North Carolina, 1950.  
**Mojica, Evelyn**, Assistant Professor, M.F.A., University of California at Davis, 1984.  
**Okita, Ted**, Associate Professor, M.A., Northwestern University, 1964.  
**Potter, Marjorie Bond**, Professor, *Emerita*, Ph.D., University of Southern California, 1958.  
**Shea, Edward**, Professor, *Emeritus*, Ph.D., New York University, 1955.  
**Stotlar, John**, Associate Professor, *Emeritus*, D.P.Ed., Indiana University, 1954.  
**Thorpe, Jo Anne Lee**, Professor, Ph.D., Texas Woman's University, 1964.  
**West, Charlotte**, Professor, Ph.D., University of Wisconsin, 1969.  
**Zimmerman, Helen**, Professor, *Emerita*, Ph.D., University of Wisconsin, 1951.

## Physics (College of Science)

**Ali, Naushad**, Assistant Professor, Ph.D., University of Alberta, 1984.  
**Arvin, Martin J.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1934.  
**Bose, Subir K.**, Professor and *Chairperson*, Ph.D., University of Allahabad, India, 1967.  
**Cutnell, John D.**, Professor, Ph.D., University of Wisconsin, 1967.  
**Gruber, Bruno J.**, Professor, Ph.D., University of Vienna, Austria, 1962.  
**Hart, Charles F.**, Assistant Professor, Ph.D., University of Texas, 1981.  
**Henneberger, Walter C.**, Professor, Ph.D., Göttingen University, Germany, 1959.  
**Johnson, Kenneth W.**, Associate Professor, Ph.D., Ohio State University, 1967.  
**Malhotra, Vivak**, Assistant Professor, Ph.D., Indian Institute of Technology, Kanpur, 1978.  
**Masden, J. Thomas**, Assistant Professor, Ph.D., Purdue University, 1983.  
**Malik, F. Bary**, Professor, Ph.D., Göttingen University, West Germany, 1958.  
**Migone, Aldo**, Assistant Professor, Ph.D., Pennsylvania State University, 1984.  
**Nickell, William E.**, Professor, *Emeritus*, Ph.D., University of Iowa, 1954.  
**Sanders, Frank C., Jr.**, Associate Professor, Ph.D., University of Texas, 1968.  
**Saporoschenko, Mykola**, Professor, Ph.D., Washington University, 1958.  
**Watson, Richard E.**, Professor *Emeritus*, Ph.D., University of Illinois, 1938.  
**Zitter, Robert N.**, Professor, Ph.D., University of Chicago, 1962.

## Physiology (School of Medicine)

**Banerjee, Chandra M.**, Professor, Ph.D., Medical School of Virginia, Richmond, 1967.  
**Bartke, Andrzej**, Professor and *Chairperson*, Ph.D., University of Kansas, 1965.  
**Browning, Ronald A.**, Associate Professor, Ph.D., University of Illinois Medical Center, Chicago, 1971.  
**Caspary, Donald M.**, Associate Professor, Ph.D., New York University, 1971.  
**Cline, William H.**, Professor, Ph.D., West Virginia University, 1965.  
**Coulson, L. Richard**, Associate Professor, Ph.D., University of Toronto, 1971.  
**Cox, Thomas C.**, Assistant Professor, Ph.D., University of Arizona, 1979.  
**Curl, James L.**, Assistant Professor, D.V.M., Oklahoma State University, 1979.  
**Dunagan, Tommy T.**, Professor, Ph.D., Purdue University, 1960.  
**Dunaway, George A.**, Associate Professor, Ph.D., University of Oklahoma, 1970.  
**Ellert, Martha S.**, Associate Professor, Ph.D., University of Miami, 1967.  
**Faingold, Carl L.**, Associate Professor, Ph.D., Northwestern University, Chicago, 1970.  
**Falvo, Richard E.**, Associate Professor, Ph.D., University of Wyoming, 1970.  
**Foote, Florence M.**, Professor *Emerita*, Ph.D., University of Iowa, 1940.  
**Giacobini, Ezio**, Professor, M.D., Ph.D., Karolinska Institute, Stockholm, 1959.  
**Hunter, William S.**, Associate Professor, Ph.D., Michigan State University, 1971.  
**Kaplan, Harold M.**, Professor *Emeritus*, Ph.D., Harvard University, 1933.  
**Lee, Tony J-F.**, Associate Professor, Ph.D., West Virginia University, Morgantown, 1973.  
**Miller, Donald M.**, Professor, Ph.D., University of Illinois, 1965.  
**Myers, J. Hurley**, Associate Professor, Ph.D., University of Tennessee, 1969.  
**Nequin, Lynn G.**, Associate Professor, Ph.D., University of Illinois Medical Center, Chicago, 1970.  
**Nickols, G. Allen**, Assistant Professor, Ph.D., University of Missouri, Columbia, 1977.  
**Peterson, Rudolph N.**, Professor, Ph.D., University of Florida, Gainesville, 1965.  
**Russell, Lonnie**, Professor, Ph.D., University of Nebraska, 1974.  
**Rybak, Leonard**, Assistant Professor, Ph.D., University of Minnesota, 1979.

**Shanahan, Michael**, Associate Professor, Ph.D., University of Michigan, 1976.  
**Smith, Douglas**, Assistant Professor, Ph.D., Kansas State University, 1977.  
**Sollberger, Arne**, Professor, M.D., Caroline Institute, Sweden, 1957.  
**Somani, Satu M.**, Associate Professor, Ph.D., Liverpool University, Liverpool, England, 1967.  
**Steger, Richard**, Associate Professor, Ph.D., University of Wyoming, 1974.  
**Strack, Louis E.**, Associate Professor, D.V.M., University of Illinois, 1961.  
**Wade, David R.**, Associate Professor, Ph.D., Cambridge University, England, 1967.  
**Yau, William M.**, Associate Professor, Ph.D., Medical College of Virginia, 1971.

## Plant and Soil Science (School of Agriculture)

**Chong, She Kong**, Associate Professor, Ph.D., University of Hawaii, 1979.  
**Elkins, Donald M.**, Professor, Ph.D., Auburn University, 1967.  
**Hillyer, Irvin G.**, Professor, Ph.D., Michigan State University, 1956.  
**Hilen, Andrew G.**, Assistant Professor, Ph.D., Cornell University, 1983.  
**Jones, Joe H.**, Professor, *Emeritus*, Ph.D., Ohio State University, 1960.  
**Kapusta, George**, Professor, Ph.D., Southern Illinois University, 1975.  
**Klubek, Brian P.**, Associate Professor, Ph.D., Utah State University, 1977.  
**Leasure, J. K.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1953.  
**Myers, Oval, Jr.**, Professor, Ph.D., Cornell University, 1963.  
**Olsen, Farrel J.**, Professor, Ph.D., Rutgers University, 1961.  
**Portz, Herbert L.**, Professor, *Emeritus*, Ph.D., University of Illinois, 1954.  
**Preece, John E.**, Assistant Professor, Ph.D., University of Minnesota, 1980.  
**Starman, Terri**, Assistant Professor, Ph.D., Texas A&M University.  
**Stucky, Donald J.**, Professor, Ph.D., Purdue University, 1963.  
**Taylor, Bradley H.**, Assistant Professor, Ph.D., Ohio State University, 1982.  
**Tweedy, James A.**, Professor, Ph.D., Michigan State University, 1966.  
**Varsa, Edward C.**, Associate Professor, Ph.D., Michigan State University, 1970.

## Political Science (College of Liberal Arts)

**Baker, John H.**, Associate Professor, Ph.D., Princeton University, 1961.  
**Bhattacharyya, Jnanabrota**, Associate Professor, Ph.D., University of Delhi, 1969.  
**Chou, Ikua**, Professor, Ph.D., Fletcher School of Law and Diplomacy, 1949.  
**Clinton, Robert**, Assistant Professor, Ph.D., University of Texas at Austin, 1985.  
**Dale, Richard**, Associate Professor, Ph.D., Princeton University, 1962.  
**Derge, David Richard**, Professor, Ph.D., Northwestern University, 1955.  
**Desai, Uday**, Associate Professor, Ph.D., University of Pittsburgh, 1973.  
**Ervin, Osbin L.**, Associate Professor, Ph.D., University of Tennessee, 1974.  
**Foster, John L.**, Associate Professor and *Chairperson*, Ph.D., University of Minnesota, 1971.  
**Garner, William R.**, Associate Professor, Ph.D., Tulane University, 1963.  
**Hanson, Earl Thomas**, Professor, *Emeritus*, Ph.D., University of Illinois, 1948.  
**Hardenbergh, William**, Professor, Ph.D., University of Illinois, 1954.  
**Jackson, John S., III**, Professor, Ph.D., Vanderbilt University, 1971.  
**Jacobini, Horace B.**, Professor, Ph.D., University of Kansas, 1951.  
**Kamarasy, Egon K.**, Assistant Professor, *Emeritus*, Doctor Politics, Budapest University, Hungary, 1942.  
**Kenney, David**, Professor, *Emeritus*, Ph.D., University of Illinois at Champaign-Urbana, 1952.  
**Klingberg, Frank L.**, Professor, *Emeritus*, Ph.D., University of Chicago, 1938.  
**Kosaki, Liane**, Assistant Professor, Ph.D., University of Michigan, 1984.  
**Landecker, Manfred**, Associate Professor, Ph.D., Johns Hopkins University, 1965.  
**Mason, Ronald M.**, Associate Professor, Ph.D., University of Iowa, 1976.  
**McGrath, Robert A.**, Professor, *Emeritus*, Ph.D., University of Iowa, 1947.  
**Melone, Albert**, Professor, Ph.D., University of Iowa, 1972.  
**Miller, Roy E.**, Associate Professor, Ph.D., University of Illinois, 1971.  
**Morton, Ward M.**, Professor, *Emeritus*, Ph.D., University of Texas, 1941.  
**Nelson, Randall H.**, Professor, *Emeritus*, Ph.D., University of Michigan, 1956.  
**Paine, Joann P.**, Associate Professor, Ph.D., University of Oregon, 1967.  
**Seroka, James H.**, Associate Professor, Ph.D., Michigan State University, 1976.  
**Snively, Keith**, Assistant Professor, Ph.D., University of California at Davis, 1984.  
**Somit, Albert**, Professor, Ph.D., University of Chicago, 1947.



**Stauber, Leland G.**, Associate Professor, Ph.D., Harvard University, 1964.  
**Turley, William S.**, Associate Professor, Ph.D., University of Washington, 1972.

## Psychology (College of Liberal Arts)

**Bekker, L. DeMoyné**, Associate Professor, Ph.D., Ohio State University, 1968.  
**Brutten, Gene J.**, Professor, Ph.D., University of Illinois, 1957.  
**Buck, Terence D.**, Associate Professor, Ph.D., University of Missouri, 1968.  
**Carrell, Patricia L.**, Professor, Ph.D., University of Texas at Austin, 1966.  
**Carrier, Neil A.**, Professor, *Emeritus*, Ph.D., University of Michigan, 1956.  
**Cunningham, Jean**, Assistant Professor, Ph.D., University of Utah, 1981.  
**Dillon-Summer, Ronna**, Associate Professor, Ph.D., University of California, Riverside, 1978.  
**Dollinger, Stephen J.**, Associate Professor, Ph.D., University of Missouri-Columbia, 1977.  
**Dunagan, Shirley S.**, Instructor, M.S., University of Tennessee, 1954.  
**Ehrenfreund, David**, Professor, *Emeritus*, Ph.D., State University of Iowa, 1947.  
**Gannon, Linda**, Associate Professor, Ph.D., University of Wisconsin, 1975.  
**Gilbert, Brenda O.**, Assistant Professor, Ph.D., University of Florida, 1985.  
**Gilbert, David G.**, Assistant Professor, Ph.D., Florida State University, 1978.  
**Graham, Jack W.**, Professor, Ph.D., Purdue University, 1951.  
**Hamilton, Mary Kathryn**, Adjunct Assistant Professor, Ph.D., University of Missouri, Columbia, 1975.  
**Hunter, Richard H.**, Adjunct Assistant Professor, Ph.D., Southern Illinois University, 1982.  
**Jensen, Robert A.**, Associate Professor, Ph.D., Northern Illinois University, 1976.  
**Kelley, Noble H.**, Professor, *Emeritus*, Ph.D., State University of Iowa, 1936.  
**Lit, Alfred**, Professor, *Emeritus*, Ph.D., Columbia University, 1948.  
**McHose, James H.**, Professor and *Chairperson*, Ph.D., University of Iowa, 1961.  
**McKillop, John A.**, Associate Professor, Ph.D., Loyola University of Chicago, 1974.  
**Meade, Charles J.**, Adjunct Assistant Professor, Ph.D., University of Maryland, 1977.  
**Meltzer, Donald**, Professor, Ph.D., University of Pittsburgh, 1963.  
**Mitchell, Thomas O.**, Associate Professor, Ph.D., University of Colorado, 1969.  
**Molfese, Dennis L.**, Professor, Ph.D., Pennsylvania State University, 1972.  
**Molfese, Victoria J.**, Professor, Ph.D., Pennsylvania State University, 1974.  
**O'Donnell, James P.**, Associate Professor, Ph.D., University of Pittsburgh, 1965.  
**Pitz, Gordon F.**, Professor, Ph.D., Carnegie-Mellon University, 1963.  
**Purcell, Thomas D.**, Associate Professor, Ph.D., Southern Illinois University, 1965.  
**Radtke, Robert C.**, Associate Professor, Ph.D., State University of Iowa, 1963.  
**Rafferty, Janet E.**, Professor, Ph.D., Ohio State University, 1952.  
**Ramanaiah, Nerella**, Professor, Ph.D., University of Oregon, 1971.  
**Ringuette, Eugene L.**, Associate Professor, Ph.D., Purdue University, 1963.  
**Schill, Thomas R.**, Professor, Ph.D., Oklahoma State University, 1963.  
**Schmeck, Ronald R.**, Professor, Ph.D., Ohio University, 1969.  
**Shoemaker, Donald J.**, Professor, *Emeritus*, Ph.D., Ohio State University, 1955.  
**Slaney, Robert B.**, Associate Professor, Ph.D., Ohio State University, 1973.  
**Smith, Douglas C.**, Associate Professor, Ph.D., Kansas State University, 1977.  
**Snyder, John F.**, Associate Professor, Ph.D., Loyola University, 1965.  
**Swanson, Jane L.**, Assistant Professor, Ph.D., University of Minnesota, 1986.  
**Tinsley, Diane J.**, Adjunct Assistant Professor, Ph.D., University of Minnesota, 1972.  
**Tinsley, Howard E.A.**, Professor, Ph.D., University of Minnesota, 1971.  
**Vaux, Alan C.**, Assistant Professor, Ph.D., Trinity College, Ireland, 1978; Ph.D., University of California at Irvine, 1980.  
**Westberg, William C.**, Professor *Emeritus*, Ph.D., Pennsylvania State University, 1948.  
**Wendt, Rachel**, Assistant Professor, *Emerita*, Ph.D., Southern Illinois University, 1966.  
**Yanico, Barbara**, Assistant Professor, Ph.D., Ohio State University, 1977.

## Radio-Television (College of Communications and Fine Arts)

**Briscoe, Harold D.**, Lecturer, M.A., Southern Illinois University, 1985.  
**Brown, William Edward**, Assistant Professor, *Emeritus*, M.S., Southern Illinois University, 1974.  
**Dybvig, Homer E.**, Associate Professor, *Emeritus*, Ph.D., Southern Illinois University, 1970.  
**Garry, Kenneth**, Assistant Professor, Ph.D., Southern Illinois University, 1982.

Gher, Leo, Instructor, M.S., Southern Illinois University, 1980.  
 Hildreth, Richard, Associate Professor, M.S., Syracuse University, 1968.  
 Holmes, John H., Lecturer, M.S., Southern Illinois University, 1971.  
 Johnson, M. William, Assistant Professor, M.S., Brooklyn College, City University of New York, 1965.  
 Keller, Kenneth, Assistant Professor, M.T.V., University of Illinois, 1966.  
 Lamude, Diane, Academic Adviser, M.A., University of New Mexico, 1982.  
 Oglesbee, Frank W., Assistant Professor, Ph.D., University of Missouri, 1969.  
 Shaw, George Punch, Assistant Professor, Ph.D., University of Texas at Austin, 1983.  
 Shipley, Charles W., Professor, *Emeritus*, Ph.D., Florida State University, 1971.  
 Sitaram, K. S., Professor, Ph.D., University of Oregon, 1969.  
 Vincent, Richard C., Assistant Professor, Ph.D., University of Massachusetts, 1983.  
 Walker, Myers, Instructor, M.F.A., Southern Illinois University, 1971.  
 Welker, Randy, Assistant Professor and *Acting Chairperson*, J.D., Southern Illinois University, 1981.

## Recreation (College of Education)

Abernathy, William, Assistant Professor, M.S.Ed., Southern Illinois University, 1963.  
 Allen, John R., Associate Professor and *Chairperson*, Ph.D., Southern Illinois University, 1977.  
 Freeberg, William, Professor, *Emeritus*, D.Rec., Indiana University, 1950.  
 Glover, James, Lecturer, Ph.D., University of Maryland, 1980.  
 Glover, Regina, Assistant Professor, Ph.D., University of Maryland, 1983.  
 McEwen, Douglas, Associate Professor, Ph.D., Michigan State University, 1973.  
 O'Brien, William, Professor, *Emeritus*, D.Rec., Indiana University, 1967.  
 Sims, Steven, Assistant Professor.  
 Teaff, Joseph, Professor, Ed.D., Columbia University, 1973.  
 Wilhite, Barbara, Assistant Professor, Ph.D., University of Georgia, 1981.

## Rehabilitation Institute (College of Human Resources)

Allen, Harry A., Professor, Ed.D., University of Arkansas, 1971.  
 Austin, Gary, Professor, Ph.D., Northwestern University, 1973.  
 Bender, Eleanor, Assistant Professor, *Emerita*, M.S., Southern Illinois University, 1962.  
 Bryson, Seymour L., Professor, Ph.D., Southern Illinois University, 1972.  
 Crimando, William, Associate Professor, Ph.D., Michigan State University, 1980.  
 Cuvo, Anthony J., Professor, Ph.D., University of Connecticut, 1973.  
 Dickey, Thomas W., Assistant Professor, *Emeritus*, M.A., Southern Illinois University, 1964.  
 Falvo, Donna R., Associate Professor, Ph.D., Southern Illinois University, 1978.  
 Gardner, Margaret S., Associate Professor, Ph.D., Northwestern University, 1960.  
 Goldman, Samuel, Professor, Ph.D., University of Chicago, 1961.  
 Greene, Brandon F., Associate Professor, Ph.D., Florida State University, 1979.  
 Grenfell, John E., Professor, Ed.D., Oregon State University, 1966.  
 Hafer, Marilyn, Associate Professor, *Emerita*, Ph.D., Texas Tech University, 1971.  
 Hawley, Irene B., Assistant Professor, Ph.D., Southern Illinois University, 1973.  
 Lee, Robert E., Associate Professor, *Emeritus*, Ph.D., University of Minnesota, 1964.  
 Miranti, Joseph P., Professor, *Emeritus*, M.D., Loyola University of Chicago, 1950.  
 Phillips, J. Stuart, Associate Professor, Ph.D., Florida State University, 1980.  
 Poppen, Roger L., Associate Professor, Ph.D., Stanford University, 1968.  
 Renzaglia, Guy A., Professor, *Emeritus*, Ph.D., University of Minnesota, 1952.  
 Riggat, Theodore F., Professor, Ed.D., University of Northern Colorado, 1977.  
 Rubin, Harris B., Professor, Ph.D., University of Chicago, 1965.  
 Rubin, Stanford E., Professor, Ed.D., University of Illinois, 1968.  
 Schumacker, Brockman, Professor, Ph.D., Washington University, 1969.  
 Viecei, Louis, Associate Professor, M.S.Ed., Southern Illinois University, 1959.  
 Wright, W. Russell, Associate Professor, Ph.D., Southern Illinois University, 1974.

## Religious Studies (College of Liberal Arts)

Bengtson, Dale R., Assistant Professor, Ph.D., Hartford Seminary Foundation, 1971.  
 Hayward, John F., Professor, *Emeritus*, Ph.D., University of Chicago, 1949.



**Morey-Gaines, Ann-Janine**, Associate Professor, Ph.D., University of Southern California, 1979.

## Social Work (College of Human Resources)

**Auerbach, Arnold J.**, Professor, *Emeritus*, Ph.D., University of Pittsburgh, 1961.  
**Brown, Foster S., Jr.**, Assistant Professor, Ph.D., Southern Illinois University, 1978.  
**Cox, Arthur J.**, Associate Professor, D.S.W., Columbia University, 1977.  
**Davidson, Mary E.**, Associate Professor and *Director*, Ph.D., Brandeis University, 1975.  
**Faulkner, Sylvia**, Assistant Professor, Ph.D., University of Southern California, 1985.  
**Gross, Carol**, Assistant Professor, Ph.D., Indiana State University, 1980.  
**Gunter, Patricia**, Assistant Professor, Ph.D., Southern Illinois University, 1980.  
**McDermott, Carol**, Instructor, M.S.S.S., Boston University, 1951.  
**Miah, Mizan**, Instructor, Ph.D., Southern Illinois University, 1985.  
**Mootry, Maria**, Assistant Professor, Ph.D., Northwestern University, 1974.  
**Tripp, Luke**, Assistant Professor, Ph.D., University of Michigan, 1980.

## Sociology (College of Liberal Arts)

**Alix, Ernest K.**, Associate Professor, Ph.D., Southern Illinois University, 1966.  
**Brooks, Melvin**, Associate Professor, *Emeritus*, Ph.D., University of Wisconsin, 1941.  
**Burger, Thomas**, Associate Professor, Ph.D., Duke University, 1972.  
**Eynon, Thomas G.**, Professor, Ph.D., Ohio State University, 1959.  
**Glasberg, Davita S.**, Assistant Professor, Ph.D., State University of New York at Stony Brook, 1983.  
**Hawkes, Roland K.**, Associate Professor, Ph.D., Johns Hopkins University, 1967.  
**Hendrix, Lewellyn**, Associate Professor, Ph.D., Princeton University, 1974.  
**Hope, Keith**, Professor, Ph.D., Oxford University, 1963.  
**Johnson, Elmer H.**, Distinguished Professor, Ph.D., University of Wisconsin, 1950.  
**Lantz, Herman R.**, Professor, *Emeritus*, Ph.D., Ohio State University, 1950.  
**Lareau, Annette P.**, Assistant Professor, Ph.D., University of California at Berkeley, 1984.  
**Meddin, Jay R.**, Associate Professor, Ph.D., University of Kentucky, 1973.  
**Nall, Frank C., II**, Associate Professor, Ph.D., Michigan State University, 1959.  
**Patterson, Edgar I.**, Instructor, M.A., University of Kansas, 1961.  
**Shalin, Dmitri N.**, Assistant Professor, Ph.D., U.S.S.R. Academy of Science, 1973.  
**Shelby, Lon R.**, Professor, Ph.D., University of North Carolina, 1962.  
**Snyder, Charles R.**, Professor, *Emeritus*, Ph.D., Yale University, 1954.  
**Ward, Kathryn B.**, Assistant Professor, Ph.D., University of Iowa, 1982.

## Special Education (College of Education)

**Bates, Paul**, Associate Professor, Ph.D., University of Wisconsin, 1978.  
**Casey, John P.**, Professor, Ed.D., Indiana University, 1963.  
**Cordoni, Barbara**, Assistant Professor, Ed.D., Duke University, 1976.  
**Crowner, James**, Professor, Ph.D., Michigan State University, 1960.  
**Ewing, Norma J.**, Associate Professor and *Chairperson*, Ph.D., Southern Illinois University, 1974.  
**Hisama, Toshiaki**, Associate Professor, Ph.D., University of Oregon, 1971.  
**Juul, Kristen D.**, Professor, Ed.D., Wayne State University, 1953.  
**Miller, Sidney R.**, Associate Professor, Ph.D., Pennsylvania State University, 1974.  
**Morgan, Howard**, Professor, *Emeritus*, Ed.D., Wayne State University, 1962.  
**Osborne, Susan**, Visiting Assistant Professor, Ph.D., University of Virginia, 1980.  
**Teska, James**, Associate Professor, Ph.D., University of Illinois, 1969.

## Speech Communication (College of Communications and Fine Arts)

**Bile, Jeff**, Instructor, M.A., Eastern Illinois University, 1984.  
**Breniman, Lester R.**, Associate Professor, *Emeritus*, Ph.D., Ohio State University, 1953.  
**Crow, Bryan**, Assistant Professor, Ph.D., University of Iowa, 1982.

Davis, Dennis, Professor, Ph.D., University of Minnesota, 1973.  
 Goodiel, Eunice B., Assistant Professor, *Emerita*, M.A., Northwestern University, 1941.  
 Higgerson, Mary Lou, Associate Professor, Ph.D., University of Kansas, 1974.  
 Jasinski, James, Lecturer, M.A., Northern Illinois University, 1980.  
 Kleinau, Marion L., Professor, Ph.D., University of Wisconsin, 1961.  
 Kleinau, Marvin D., Associate Professor, Ph.D., Southern Illinois University, 1977.  
 Lamude, Kevin, Lecturer, M.A., University of New Mexico, 1983.  
 Lanigan, Richard L., Professor, Ph.D., Southern Illinois University, 1969.  
 Micken, Ralph A., Professor, *Emeritus*, Ph.D., Northwestern University, 1948.  
 Minor, William S., Adjunct Professor, Ph.D., University of Chicago, 1971.  
 Pace, Thomas J., Professor, Ph.D., University of Denver, 1957.  
 Parkinson, Michael G., Associate Professor, Ph.D., University of Oklahoma, 1978.  
 Pelias, Mary, Assistant Professor, Ph.D., Southern Illinois University, 1982.  
 Pelias, Ronald J., Assistant Professor, Ph.D., University of Illinois, 1979.  
 Potter, David J., Professor, *Emeritus*, Ph.D., Columbia University, 1943.  
 Sanders, Keith R., Professor, Ph.D., University of Pittsburgh, 1968.  
 Scudder, Joseph, Assistant Professor, Ph.D., Indiana University, 1986.  
 Smith, William D., Associate Professor, Ph.D., Southern Illinois University, 1964.  
 Talley, C. Horton, Professor, *Emeritus*, Ph.D., State University of Iowa, 1936.  
 VanOosting, James, Associate Professor, Ph.D., Northwestern University, 1980.  
 Wakefield, Gay, Assistant Professor, Ed.D., East Texas State University, 1983.  
 Wiley, Raymond D., Assistant Professor, *Emeritus*, M.S., Southern Illinois University, 1965.

## Technology (College of Engineering and Technology)

Andrews, Paul E., Associate Professor, Ph.D., Southern Illinois University, 1980.  
 Barbay, Joseph E., Jr., Associate Professor, Ph.D., University of Missouri, Columbia, 1971.  
 Besterfield, Dale H., Professor and *Chairperson*, Ph.D., Southern Illinois University, 1971.  
 Chen, Han Lin, Assistant Professor, M.S., Southern Illinois University, 1958.  
 Contor, Keith L., Assistant Professor, M.S., State College of Washington at Pullman, 1960.  
 Cross, Bud D., Visiting Professor, M.S., Southern Illinois University, 1965.  
 Cutrell, Charles R., Visiting Assistant Professor, M.B.A., University of Missouri, 1972.  
 Dickinson, Aurthur L., Visiting Assistant Professor, M.A., Pepperdine University, 1981.  
 Dunning, E. Leon, Professor, *Emeritus*, Ph.D., University of Houston, 1967.  
 Eichfeld, William F., Assistant Professor, M.S., University of Wisconsin, 1973.  
 Ferketich, Robert R., Associate Professor, Ph.D., Southern Illinois University, 1980.  
 Fillman, Harry W., Visiting Associate Professor, M.S., Columbia University, 1964.  
 Frank, Roy R., Jr., Assistant Professor, M.S., Southern Illinois University, 1983.  
 Gardner, Autrey T., Visiting Assistant Professor, M.A., University of Colorado, 1983.  
 Hart, Willard C., Instructor, *Emeritus*, B.S., University of Illinois, 1939.  
 Horwitz, Norman G., Visiting Assistant Professor, M.S., Polytechnic Institute of Brooklyn, 1972.  
 Jakubowski, Tadeus L., Visiting Assistant Professor, M.A., University of Maryland, 1968.  
 Johnson, Marvin E., Professor, Ed.D., University of Missouri, Columbia, 1959.  
 Jones, Robert L., Visiting Assistant Professor, M.S., University of Arkansas, 1978.  
 King, Frank H., Visiting Assistant Professor, *Emeritus*, Ph.D., Southern Illinois University, 1981.  
 Klopp, Mark E., Associate Professor, *Emeritus*, M.S.Ed., Pennsylvania State University, 1954.  
 Lasley, Alan L., Visiting Assistant Professor, M.S., Drury College, 1974.  
 Lindsey, Jefferson F., III., Professor, D. Engr., Lamar University, 1976.  
 Marusarz, Ronald K., Assistant Professor, M.S., Southern Illinois University, 1978.  
 McBeath, John K., Visiting Assistant Professor, M.A., San Francisco State University, 1969.  
 Medeiros, Raymond R., Visiting Assistant Professor, M.S., Texas Tech College, 1964.  
 Meyers, Fred E., Associate Professor, M.B.A., Capitol University, 1975.  
 Moeller, C. Merrill, Associate Professor, *Emeritus*, M.S.C.E., Kansas State University, 1951.  
 Newsome, Herbert R., III, Visiting Assistant Professor, M.A., University of Northern Colorado, 1974.  
 Nolan, Emil Ray, Visiting Assistant Professor, M.S., University of Arkansas, 1985.  
 O'Hagan, Flora M., Visiting Assistant Professor, M.S., University of Wisconsin at Madison, 1970.  
 O'Hagan, Robert E., Visiting Assistant Professor, M.S., Wisconsin State University, 1974.



**Orr, James P.**, Associate Professor, Ph.D., Southern Illinois University, 1983.  
**Ott, Carlyle G.**, Assistant Professor, *Emeritus*, M.S.Ed., Southern Illinois University, 1951.  
**Pagano, Mark A.**, Assistant Professor, M.S., Southern Illinois University, 1983.  
**Parsi-Feraidoonian, Hootashmand**, Visiting Assistant Professor, M.S., Southern Illinois University, 1984.  
**St. Stephens, Matthew P.**, Visiting Instructor, B.S., Southern Illinois University, 1982.  
**Slaney, John H.**, Visiting Assistant Professor, M.S., George Washington University, 1967.  
**Stuessy, Eugene L.**, Visiting Associate Professor, Ed.D., Texas A & M University, 1969.  
**Szary, Marek**, Assistant Professor, Ph.D., Wroclaw (Poland), 1977.  
**Trivedi, Abhay V.**, Assistant Professor, M.S., North Dakota State University, 1984.  
**Trussell, Teresa**, Assistant Professor, B.S.E., Princeton University, 1977.  
**Tucker, David L.**, Visiting Instructor, B.S., Bradley University, 1981.  
**Zeigler, Timothy W.**, Assistant Professor, M.S., University of Illinois, 1969.

## Theater (College of Communications and Fine Arts)

**Carlin, Elizabeth**, Assistant Professor, M.F.A., Temple University, 1983.  
**Hiatt, Janet**, Assistant Professor, M.F.A., Ohio University, 1973.  
**Hirsig, Neal**, Adjunct Associate Professor, M.F.A., University of Montana, 1977.  
**McLeod, Archibald**, Professor, *Emeritus*, Ph.D., Cornell University, 1943.  
**Moe, Christian H.**, Professor, Ph.D., Cornell University, 1958.  
**Palec, Milan**, Assistant Professor, M.F.A., Prague, Czechoslovakia, 1973.  
**Pinney, George**, Assistant Professor, M.F.A., Southern Illinois University, 1980.  
**Stevens, David**, Associate Professor and *Chairperson*, Ph.D., Bowling Green University, 1973.  
**Stewart-Harrison, Eelin**, Professor, *Emerita*, Ph.D., Louisiana State University, 1968.  
**Straumanis, Alfreds**, Professor, Ph.D., Carnegie Institute of Technology, 1966.

## Vocational Education Studies (College of Education)

**Anderson-Yates, Marcia**, Associate Professor, Ph.D., Southern Illinois University, 1975.  
**Bailey, Larry J.**, Professor, Ed.D., University of Illinois, 1968.  
**Bittle, R. E.**, Professor, Ed.D., University of Florida, 1956.  
**Bortz, Richard F.**, Professor, Ph.D., University of Minnesota, 1967.  
**Boss, Richard D.**, Visiting Associate Professor, Ed.D., Oregon State University, 1968.  
**Brames, Thomas J.**, Visiting Assistant Professor, Ed.D., Utah State University, 1975.  
**Brownlee, Ronald J.**, Visiting Assistant Professor, Ed.D., Virginia Polytechnic Institute and State University, 1977.  
**Bubnas, Phyllis**, Assistant Professor, M.S., Southern Illinois University, 1960.  
**Buila, Theodore**, Associate Professor, Ph.D., Cornell University, 1968.  
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